OCTOBER 1908

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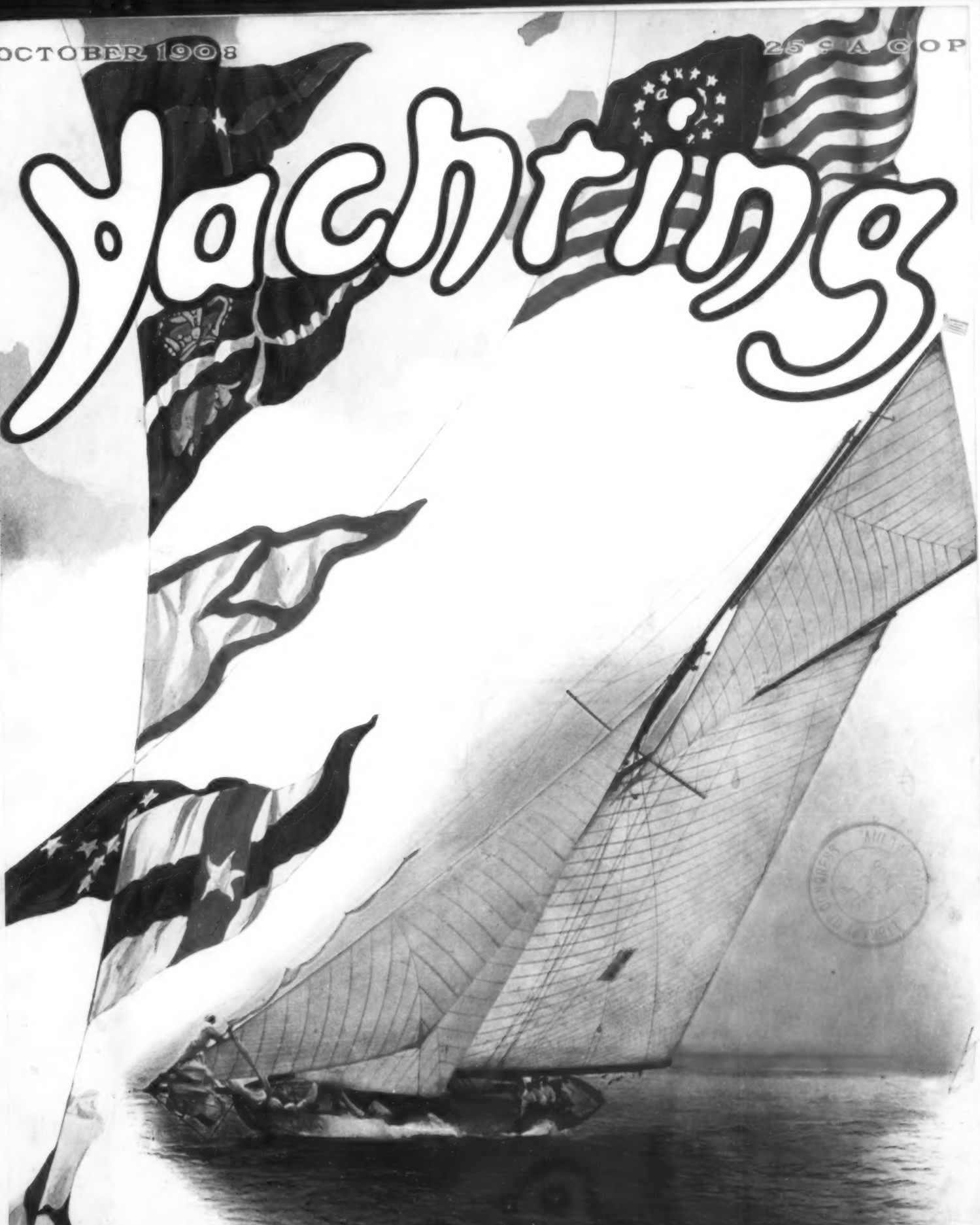
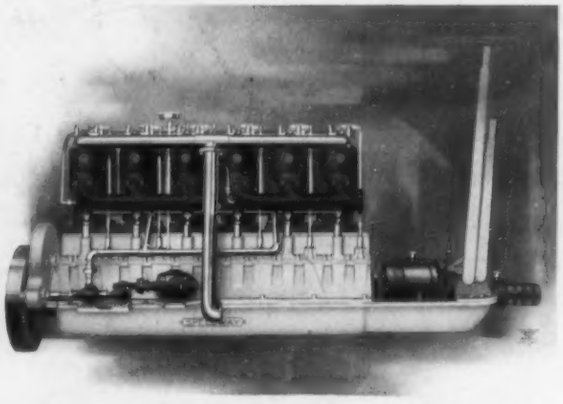
Yachting



YACHTING PUBLISHING CO. NEW YORK

SPEEDWAY GASOLENE MARINE ENGINES



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52 FT. CRUISER "WISTARIA." 25 H. P. GASOLINE ENGINE

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Experience proves that trying to save money by building at the small yard with no responsibility or organization invariably forces you to accept a boat never up to specifications and always late in delivery.

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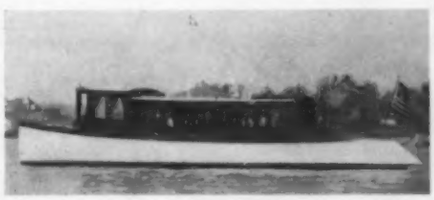
A DEPARTMENT for the sale and charter of craft of every kind, in the interests of YACHTING's *subscribers. A special low rate is made for advertisements in this classification, which includes the making of a half-tone reproduction, free of charge, from photograph furnished by the advertiser. For rates address*

ADVERTISING DEPARTMENT

YACHTING PUBLISHING COMPANY
20 Vesey Street - - - New York.

NO. 1504.—FOR SALE. Centerboard cruising yawl, 38 x 29 x 9.6 x 2.6. Designed by Mower and built by Wicks in 1903, of oak, pine and copper. 1,500 lbs. outside lead ballast. Roomy cabin and cockpit. Headroom 5.8. Accommodates four. Tender anchors, lights, awning, etc., etc. A good, seaworthy boat, quite speedy. Handles very easily. Complete outfit. Toilet, etc. Sell at third of cost price if sold quickly. Henry J. Gielow, 50 Broadway, New York.



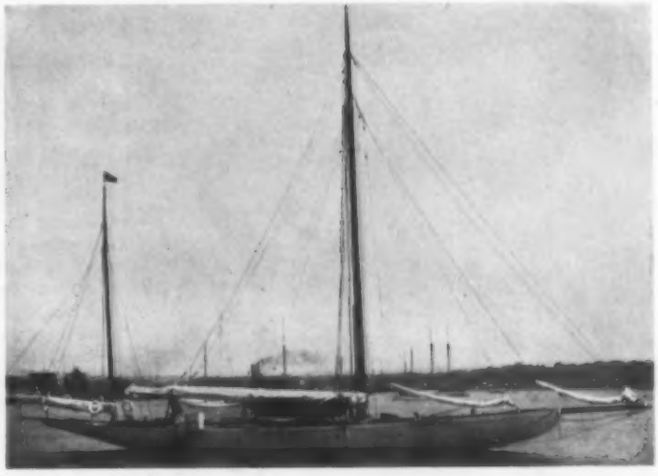
NO. 371—FOR SALE.—Cabin cruiser, 40 ft. over all, 42 ft. waterline, 10 ft. beam, and 2.8 ft. draught. Designed and built by Murray & Tregurtha. Interior finished in mahogany, exterior of butternut. Full headroom five extension berths. Sands' toilet. Equipped with 4-cylinder 4-cycle 20 H. P. Murray & Tregurtha motor, giving speed of 11 miles. 120 gal. gasolene tank. Complete inventory. Boat is in excellent shape, and perfect cruiser. Price, $2,500. Henry J. Gielow, 50 Broadway, New York.

NO. 2120.—FOR SALE, auxiliary yawl, 27x22x8.3x3 ft. 4 in.; keel and small centerboard. Designed and built by Reed Bros. in 1901. Inside and outside ballast. Trunk cabin and cockpit; accommodation for three. Sails in good condition. 5 H. P. 2 cylinder Rochester motor installed 1903, giving speed of 6 miles. Has very complete inventory, in best of shape. Has given entire satisfaction, and can be seen in full commission near Fall River, Mass. Price just reduced to $550. Henry J. Gielow, 50 Broadway, New York City.

NO. 992—FOR SALE.—Pole mast keel auxiliary sloop, 45 x 29 x 13 x 5.5. Outside lead ballast, 5 tons. Roomy cabin and cockpit. Full headroom. Accommodations for three to six. Toilet. Sails new this year. Equipped with 5 H. P. Palmer motor, giving speed of 4½ to 5 miles. Complete inventory, including small boat. In A-1 condition, and now in commission. Considerable reduction in price for immediate sale. Henry J. Gielow, 50 Broadway, New York City.

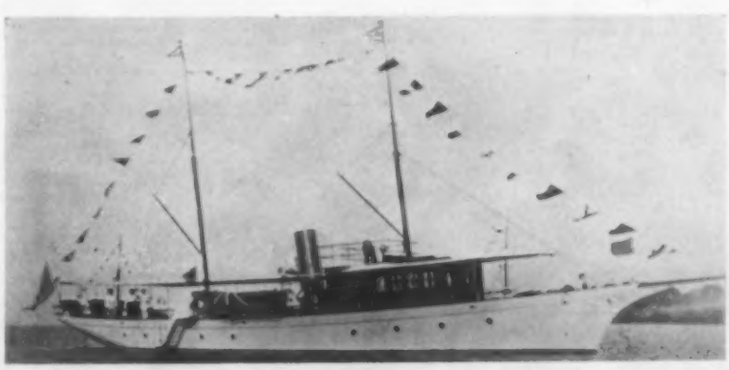
MULLIN'S 22 FT. STEEL LAUNCH, new last year. 6 H. P. Ferro Engine in best order. Cost, complete with cushions, etc., $750.00; will sell for $450.00 spot cash. Only desire to sell is to get larger boat. Can be seen and tried any day. No options, first offer will be accepted. C. T. Kuchler, New Rochelle, N. Y.

NO. 1240—FOR SALE.—Twin screw, flush deck auxiliary yawl, 86 x 58 x 15.6 x 10.6. Designed and built by Fife in Scotland, 1898. Composite construction. Inside and outside ballast, 18 tons. Interior finish mahogany One double and two single staterooms, and two transoms in good sized main cabin. Sails, spars, rigging, awnings, lights, ground tackle, dinghy, and outfit below deck, all new 1908. Also topmast and topsails. Also has new mahogany launch. Two Lathrop 20 H. P. gasolene engines, new 1908, giving speed of 8 miles. Acetylene lights. Gasolene tanks in separate watertight compartment. A handsome model and excellent sea boat. Special concessions if sold before laying up. Henry J. Gielow, 50 Broadway, New York.

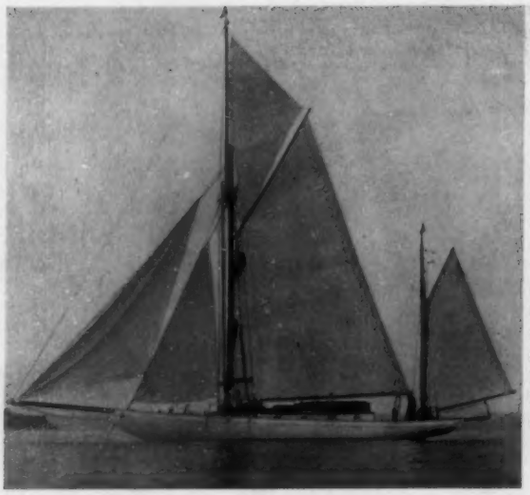


NO. 1722—FOR SALE.—Handsome auxiliary centerboard sloop. 34 x 26.6 x 11 x 3.6. Built by Wickes, Patchogue, L. I., 1899. Has been well taken care of and is practically as good as new. Oak frames, yellow pine planking, cypress deck, no butts. Deck, sheer strake, and cabin trunk, varnished. Trunk about 12 ft. long with 5 ft. 7 in. headroom. Small stateroom forward with patent toilet. Water tank, 80 gals. Hair filled transom cushions. Green curtains for sides of cabin and ports. Five sails, all in excellent condition. Patent steering gear. Inside iron ballast, moulded to fit frames. Four H. P. Mianus engine under cockpit floor. Twenty-gallon copper gasolene tank under cockpit seat. Very complete outfit including tender, awning, anchors and cables, lights, boat hook, life belt, foghorn, charts, carpets for cabin and stateroom, double Primus stove, cooking utensils, dishes, silverware, etc. Attractive model and large cabin for yacht of her size. Party of four and sailor have cruised for three or four weeks in comfort. Staunch and able. One of the most complete and desirable boats of her size. Bargain, if sold before laying up. Henry J. Gielow, 50 Broadway, New York.

NO. 1398—FOR SALE.—Fast cruising schooner yacht, 64 ft. over all, 43 ft. waterline, 14 ft. 6 ins. beam, and 8 ft. 10 ins. draught. Designed and built by Lawley in best manner in 1898. Outside lead ballast. Flush deck; 8 ft. 6 ins. cockpit. Interior finished in solid mahogany. Two staterooms and saloon. Two toilets. Sails new 1904. Launch, dinghy, etc. In excellent condition and a fine sea boat. Fine bargain for immediate sale. Henry J. Gielow, 50 Broadway, New York.

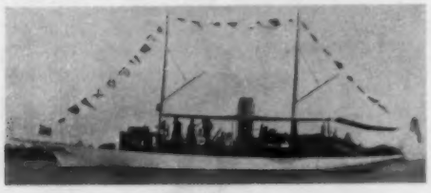


NO. 19.—FOR SALE OR EXCHANGE.—Steam yacht 106 ft. over all, 86.3 ft. waterline, 13.6 ft. beam, and 6.6 ft. draught. Built of wood in 1891; completely overhauled 1905, when she was entirely replanked, new decks, new dynamo, electric lights, etc., at cost of about $6,000. Very large dining saloon; three staterooms and saloon. Interior finish, mahogany. Launch and dinghy. Compound engine, giving cruising speed of 12, and maximum 13½ miles. Roberts watertube boiler. Has always been kept in best possible condition, and is sound in every respect. Henry J. Gielow, 50 Broadway, New York City.

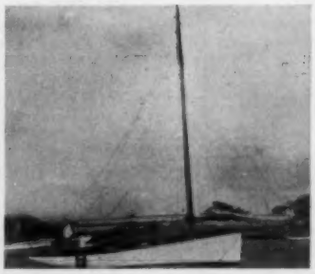


NO. 730—FOR SALE.—Centerboard auxiliary yawl, 61 x 43 x 16 x 6. Built in 1896 from designs by A. Cary Smith. Construction, teakwood and hard pine; copper fastened. Planking full length. Lead ballast, 4½ tons inside and 3 tons outside. Trunk cabin and flush deck. Interior finish of mahogany and cypress. Two staterooms and two double berths. Two toilets. Four water tanks, capacity about 200 gals. Sails new 1908. Equipped with 12 H. P. motor, new last July. Completely found, including small boats, etc. This craft is fast and a fine seaboat. Has made two trips to Tampa, Fla., outside route, one in winter, in five days. Henry J. Gielow, 50 Broadway, New York City.

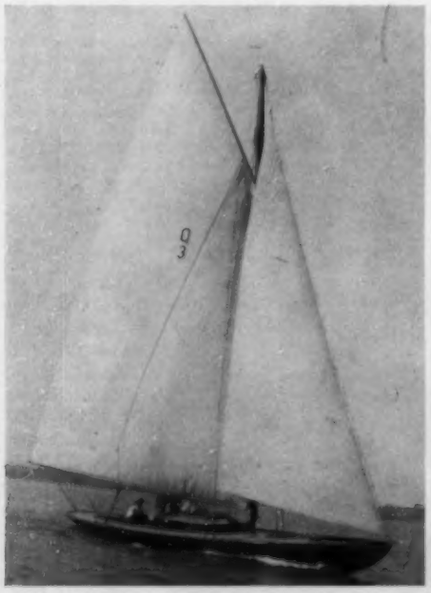
NO. 687—FOR SALE.—Handsome and fast cruising auxiliary yawl, 74 x 47 x 17 x 6.5. Designed by Gardner and built by Wood in 1902. Composite construction (steel frames). Centerboard under cabin floor. Outside lead ballast. Large cabin and cockpit. Two staterooms. Interior of white and mahogany. Two toilets. Ratsey sails new this year, complete suit. Main and topmasts new this year. Equipped with 10–12 H. P. gasolene motor, giving speed of five miles. Acetylene lights. Launch and cutter. Very complete inventory. Substantially built and suitable for deep sea cruising. Easily handled. Thoroughly overhauled this season, and is in excellent condition. Henry J. Gielow, 50 Broadway, New York City.



NO. 1160—FOR SALE.—Attractive steam yacht 75 x 60 x 11.5 x 5.5. Built 1896. Large saloon, double stateroom forward Accommodates eight in owner's part. Mahogany finish. Two toilets. Compound engine 6 ins. and 1 in. x 12 ins., giving speed of 10 miles. Almy water tube boiler in good condition. Economical to run. In first class condition as to hull and machinery. Now in commission. Henry J. Gielow, 50 Broadway, New York.



NO. 2282—FOR SALE. Centerboard auxiliary jib and mainsail sloop, 28 x 24 x 10.3 x 3. Built 1902. Exceptionally well constructed. Roomy cabin and cockpit. Accommodates four. Equipped with 3 H. P. Palmer motor. Fully equipped for cruising. In splendid condition. Heavily built and fine sea boat. Asking price very reasonable; special concession if sold while still in commission. Henry J. Gielow, 50 Broadway, New York.



NO. 1135—FOR SALE.—One of the most successful Class Q racing and cruising sloops. 35 x 24 x 7.11 x 5.6. Built 1905 from Gielow designs. Best construction. Outside lead ballast. Good-sized cabin and cockpit. Accommodations for two. Two suits Ratsey sails in splendid shape. Very good inventory. Mahogany cabin, cockpit and trimmings. This boat is in the finest condition, and is the winner of many prizes. Not a shell, like most of her class. Remarkably fast in light airs. Now in commission, just been entirely scraped and varnished. Henry J. Gielow, 50 Broadway, New York.

NO. 1576—FOR SALE—Desirable half cabin launch, 30 x 8 x 2.10. Built 1903 by well-known firm. Handsomely finished. Large cabin, headroom 6.6. Accommodates four on extension berths. Sands' toilet. Standing roof over cockpit. Equipped with 10 H. P. 4-cycle motor, in perfect condition, giving speed of eight miles. Copper gasolene tank, 64 gals. Boat is fully equipped for cruising, is in excellent condition, and in every way seaworthy. Best construction. Henry J. Gielow, 50 Broadway, New York.

NO. 1401—FOR SALE. — Successful Class P, keel racing and cruising sloop. Winner of numerous prizes. Gielow design, built 1906, 41.8 x 30.1 x 9.4 x 6.5. Double planking, cedar and mahogany, copper fastened, lead ballast. Mahogany trunk cabin, cockpit, etc. Bronze blocks, wire running rigging. Two wide transoms in cabin; toilet room, galley. Hollow mast and gaff. Excellent inventory. Outfit includes cross cut mainsail and jib, 1908, two balloon jibs, extra jib, No. 2 jib, two spinnakers, new sail cover, anchor and cable, round bottom dinghy, cabin cushions, curtains, lamp, side lights and riding light, and double burner stove. Photo with small jib. Price really attractive. Henry J. Gielow, 50 Broadway, New York.

NO. 46—FOR SALE. —One of the few auxiliary yawls of her size having her light draught, and probably the most desirable of her type. Specially adapted for Southern waters. 54 ft. over all, 36 ft. water line, 15 ft. beam, 3 ft. 4 ins. draught. Built by well-known firm. Copper fastened. Forecastle, galley, main cabin and captain's stateroom. Interior finish, white with mahogany trim, headroom, 6 ft. 4 ins. Sleep five in cabin. Ratsey sails. New standing rigging. Decks recently recaulked with black marine glue. Acetylene lights. 10 H. P., 2-cylinder, 4-cycle, Globe gasolene engine. Well equipped for cruising. Inventory includes gig and dinghy, anchors, chain and cable, awnings, lights, etc., and cabin equipment. Price very reasonable if sold before laying up. Located near New York. Henry J. Gielow, 50 Broadway, New York.

No. 857

FOR SALE

Attractive Power Launch

(HUNTING CABIN TYPE)

53 x 10 ft. 6 in. x 3 ft. 4 in.

Built 1904 by N. Y. Yacht, Launch and Engine Co.

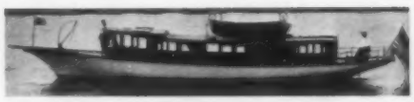
IN BEST MANNER

Desirable Boat for Day Cruising. Finished in Mahogany. Good sized Saloon and Galley. Cockpit 15 ft. 6 in. long. Equipped with 30 H. P. 4 Cylinder 4 Cycle 20th Century Motor, giving speed of 12 to 13 miles

PRICE VERY LOW

HENRY J. GIELOW

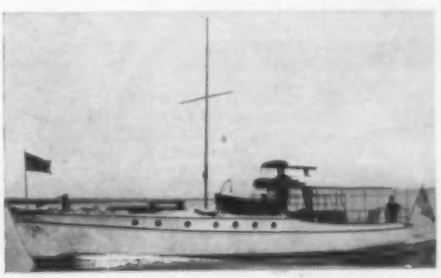
50 BROADWAY NEW YORK



NO. 1509—FOR SALE.—Cruising launch, 50 x 40.5 x 11 x 3.6. Built 1900 by well-known firm. Oak frames, cedar planking, copper fastened. Interior finished of mahogany throughout. Toilet accommodations for six. Completely found for cruising, including dinghy. Equipped with 18 H. P. Standard motor, giving speed of 9½ to 10½ miles. Gasolene tank, 300 gals., 150 gal. copper water tank. This boat has had the best of care, and can be purchased at a very reasonable figure. Henry J. Gielow, 50 Broadway, New York.

NO. 1264. For sale, handsome keel and centerboard knockabout, 40 x 25 x 10 x 5. Designed and built 1903 by well known firms, and has had little use. Oak frames; double planking; copper fastened. Outside lead, 6,500 lbs. Finished in mahogany, white and gold. Two wide berths; to let. Sails new 1907. Very good inventory, including 10' tender. Mahogany cabin and cockpit. A desirable craft at very low figure. Henry J. Gielow, 50 Broadway, New York City.

FOR SALE—Fast, able cabin knock-about, 30 ft. x 18 ft. x 9 ft. x 2 ft. 8 in. Centerboard houses in keel and flush with cabin floor. In A1 condition, new sails. Inventory complete. Seen near New York. Price, to quick buyer, $400. Bargain, care YACHTING.



FOR SALE.—Handsome raised deck cruiser, 57 x 11.6 x 3.6 ft., designed and built by the Williams-Whittelsey Co., 1906. 25 H. P. Standard engine, control of which is handled from the steering position. Speed, 11 miles. Fully furnished. Electric light plant. Arrangement: Galley, engine room and crew's toilet forward; next aft, large saloon, containing two extension berths; next aft to starboard, lockers, to port, toilet; next aft, large stateroom, containing double and single berths. Boat will stand closest inspection for material, seaworthiness and workmanship of model. Now in commission. Full particulars Whittelsey & Whitaker, Naval Architects, 11 Broadway, New York City.

THIRTY FOOTER WANTED

New York or Buzzards Bay thirty footer, or boat of similar type. Must have about six feet head room in cabin. State full particulars and price. Address G, care of YACHTING.

FOR SALE—Single hand cruising keel yawl, 27 x 19 x 7½ x 4½, lead ballast inside, iron on keel. Built 1900. Oak frames, double planking, good free board, sky-light, self-bailing cockpit, full headroom, toilet, water-tank, sink, ice box, two transoms, dish, clothes and storage lockers, forecastle, full cruising inventory; jib, storm jib, mainsail and mizzen, 10-ft. dowry skiff. Hauled out at New Rochelle. Edward H. Klotz, 60 Warren St., New York.

FOR SALE.—Arthur Binney designed, twin-screw, gasolene yacht "Kasagi," 66 x 10 x 3¼ Ft., copper fastened. Besides crew, accommodates six in pilot house, stateroom and after cabin. Large lockers, two toilets, two wash bowls. Headroom, 6½ ft. Acetylene lighted. Outside of house mahogany, interior butternut, stained mahogany. Two, independent, 4-cylinder Standard engines, 25 H. P. each. Maximum speed, 12 knots. Tanks copper, 480 gals. gasolene, 100 gals. water. Cruising radius 1,000 miles at 8½ knots. Launch, dinghy. Steers from bridge and from pilot house. Berths have wire-spring mattresses. Screens and shades for windows. Complete cruising inventory. Machinery and shaft-bearings just renovated. Total fuel consumption only 4 gals. per hour at 8½ knots. Purchaser will not have to expend a cent for repairs as yacht is in perfect condition. Has cruised from New York to Cape Breton Island. George E. Hills, 33 Broad Street, Boston, Mass.

FOR SALE.—Modern trunk cabin cruising launch, completed August, 1906. 58 ft., 6 ins. over all, 52 ft. waterline, 11 ft. 3 ins. beam, 4 ft. draught. Murray & Tregurtha 4 cylinder, 40 H. P. gasolene engine; speed 10 knots. Steers from bridge deck. Has very comfortable cabin finished in mahogany and green velour, two staterooms, two berths in pilot-house, large toilet room, galley and forecastle. She is fully equipped in every respect and carries two tenders on davits. Separate engine and dynamo for lighting purposes. Flush deck, 11 ft. long, covered by awning. Excellent sea-boat. This desirable boat can be purchased at a very reasonable price. Also available for charter. For plan, etc., apply to William Gardner, 1 Broadway, New York City.

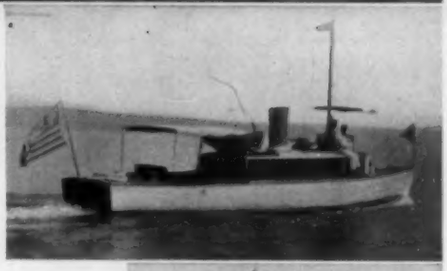
FOR SALE.—High speed runabout launch, completed August, 1907. 28 ft. long, 5 ft. beam, oak frame, cedar planking, copper fastened, mahogany finish throughout, brass fittings, bronze shaft and wheels, 4-cylinder, 2-cycle, 40 H. P. motor with reverse gear, guaranteed speed 23 miles per hour, Shebler carburetors. Will carry eight comfortably. Can be purchased at bargain figure. Apply William Gardner, 1 Broadway, New York City.

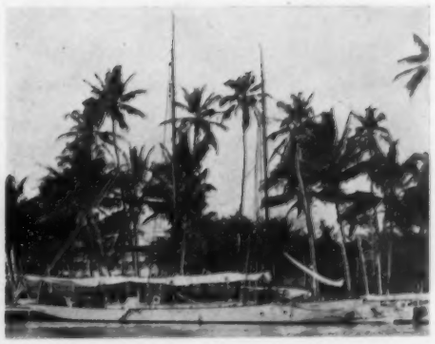
FOR SALE.—Modern keel sloop. Dimensions—Length over all 60 ft., waterline 41 ft., beam 12 feet., draught 8 ft. Designed by William Gardner and built by B. Frank Wood 1906. Well known for her racing record the past three years; excellent accommodations, consisting of large main saloon with two transom berths, also two comfortable berths aft of saloon, toilet room, galley and forecastle. First - class sea boat in every respect. This boat is in first-class condition. Reasonable figure will be accepted for immediate sale. For full particulars apply William Gardner, 1 Broadway, New York City.

FOR SALE.—Fine cruising, cabin launch, copper fastened, 42 ft. over all, 8 ft. 6 ins. beam, 4 ft. draft, mahogany house and interior, 4 extension berths, toilet room, gallery, etc. 20 H. P. 3 cylinder Murray & Tregurtha motor, installed April, 1907. Reverse gear, air pump and tank, whistle and air gauge, 115 gal. copper gasolene tank in bow, folding anchor, 35 fathoms cable, cushions, carpets, curtains, flags, stove, ice chest, sailing lights, binnacle, ring buoys, etc. Hull, motor and equipment in excellent condition. Owner anxious to dispose of boat this Fall. Submit an offer. Apply. William Gardner, 1 Broadway, New York City.

FOR SALE.—One of the most beautiful schooners afloat to-day, designed by Clinton H. Crane, and built in 1902 by the Lawleys. The construction is very expensive throughout, the planking being double, the outer skin thick mahogany, while the plankshear, rail and skylights are of teak. Her dimensions are 75 x 46 x 15 x 11. There is a large double stateroom aft, with another forward for the captain. There are also many bunks and transoms. The crew's quarters sleeps four. The main saloon takes the width of the boat, and is well supplied with sofas, shelves and cabinets. There is 7 ft. headroom, and the interior finish is rich mahogany. There are two toilet rooms and a large galley on the starboard side. The inventory is the most complete of any boat of her size, including two suits of sails, one made by Wilson & Silsby in 1906, a gig and launch, binnacle and compass, etc., etc. For particulars apply to W. Starling Burgess Co., Ltd. (H. A. Hawthorne, Agent) 153 Milk Street, Boston.

FOR SALE.—Up-to-date cruising power boat, 50 ft. overall, 49 ft. waterline, 9 ft. beam, 2 ft. 9 ins. draught. Designed and built by leading Boston firms in 1904-05. Deck house rearranged and new in 1908. 20 H. P., 4-cylinder motor (1908), gives speed 11½ to 12 miles—all day—every day. Gasolene capacity 120 gallons. Sleeps six in owner's party. Berth for man in engine room. New equipment this season—complete to smallest detail. Cedar dinghy on davits; awnings, cushions, carpets, auxiliary sails, three anchors, chain and cables, electric lights, etc. Finish in solid mahogany and quartered oak. Stateroom, toilet room, generous lockers. Stack ventilates engine room. Steers from bridge forward, or from cockpit with engine control—a one man boat when desired. The snappiest looking boat of its size in New York waters. Able, comfortable and roomy for day or extended cruising. In commission until October 10th. She's all right but owner wants larger auxiliary yawl. Hastings, P. O. Box 1592, New York.





FOR SALE.—Modern, steel constructed, light draft, auxiliary schooner (see illustration), especially built for cruising in either Florida or West Indies, in excellent condition. Dimensions: Length over all, 85 ft., waterline, 60 ft., beam, 19 ft. 4 ins., draft, 4 ft. 9 ins. Launched in 1901; equipped with 40 H. P. Craig engine, new 1905; very economical boat to operate. Accommodation consists of three large commodious staterooms, with light and ventilation especially good, large main saloon sleeping four people, bathroom, three toilets, galley and forecastle. Located near New York. Must be seen to be appreciated. First-class boat in a sea-way. For full particulars apply to William Gardner, 1 Broadway, New York.

KEEL sloop. Designed under universal rule by Wm. Gardner. Rates 27', 44' over all, 28' water line, 5' 6" draft, 9' 7" beam. Full headroom. Sleeps five. 982 square feet sail. Reasonable.

Louis Sayer, Canandaigua, N. Y.

FOR SALE: 30 ft. open boat, 7 ft. beam, rebuilt new 1907, guaranteed sound and in good condition. Complete with spray hood, cushions and equipment, 10 H. P. Tuttle engine 1908, makes nine miles. Cost $1200.00, will sell for $600.00. Boat now on Lake George. J. A. Holden, Glens Falls, N. Y.

WANTED—AUXILIARY CRUISING SCHOONER OR YAWL in first-class condition, about 70 ft. over all. Give full particulars and lowest cash price. Address Auxiliary, P. O. Box 1592, New York City.

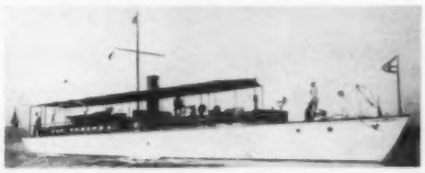
FOR SALE.—Handsome and substantial steel frame cruiser, 31 ft. by 5 ft., natural oak finish; 10 H. P. oil engine, governors and reverse. Winner of two gold cups. Up-to-date in every respect. Will sell for $500. Lost interest in boating. Address, V. L. Emerson, Alexandria, Va.

NO. 10157—FOR SALE.—Class "Q" raceabout (see illustration) by Mower & Lawley 1906. Double planked, copper fastened throughout; two tons lead on keel. 38 x 25 x 8 x 6. Is unquestionably one of the fastest in the class; cannot be beaten in moderate weather. Won over all others in the class first race for Thompson Cup, Gravesend Bay, August, 1908. Won ten firsts season 1908. Two complete suits sails, one new 1908 by Ratsey. Price low. Apply to Stanley M Seaman, 220 Broadway, New York.

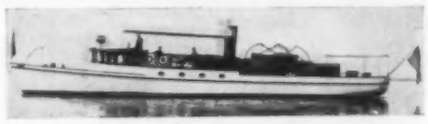
NO. 272—FOR SALE—One of the best of the "Q" class boats, designed this year by W. Starling Burgess, and built by his firm in the best manner. Conforms to all of the scantling restrictions and has proven one of the speediest sailers in the class. Two suits of racing sails. Apply to W. Starling Burgess Co., Ltd., 153 Milk Street, Boston, or Tams, Lemoine & Crane, 52 Pine Street New York City.

COX & STEVENS, 15 William Street, (Telephone) 1375 Broad NEW YORK

Offer following selections of desirable craft now available, either for purchase or charter, for Southern Waters, etc. Let us know your requirements. Complete descriptions, plans and photographs promptly submitted. Yachts of every description for sale or charter.

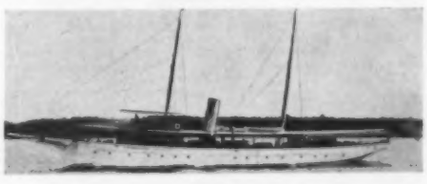


NO. 446.—Attractive fast 92-ft. cruising power yacht with good accommodations, one of the best boats of her type. Terms very reasonable.



NO. 370.—Handsome twin screw 80-ft. cruising power yacht with good speed. Beautifully finished, fitted and furnished. Adapted for use in shoal draught waters.

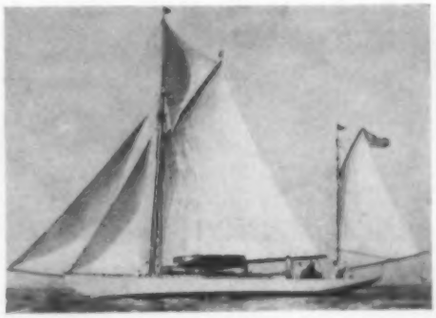
NO. 429.—Splendid cruising power yacht, 69 x 13 x 4 ft. draught. Excellent accommodations. Standard engines. Beautifully fitted, finished and furnished. Sell or charter for Southern cruise.



NO. 75.—Attractive steam yacht with excellent quarters, all in first-class condition, built recently. Almy boiler just installed. Length on deck, 141 ft.; waterline, 125 ft. 6 ins.; beam, 17 ft. 6 ins.; draught, 7 ft. 6 ins. Two handsome mahogany deckhouses, forward one being used as dining saloon and pantry with galley below, and the after house as music room with companionway to lower quarters, which consist of large saloon, four large staterooms, bath and toilet. All joiner work selected mahogany and all fittings of the very best. Has new launch and two pulling boats, steam heat and electric light, bilge keels. Unusually economical boat on coal and very good, comfortable cruising vessel, in excellent condition throughout.

NO. 206.—Exceedingly attractive 100-ft. modern up-to-date power yacht. Liberal accommodations, all conveniences. All finishings, fittings and furnishings absolutely first-class.

NO. 1625.—Attractive gasolene cruiser, 75x14x3 ft. 6 in. draught. Equipped with twin screw 25 H. P. Standards. Liberal accommodations. Price low.



NO. 344A.—Fine modern auxiliary yawl, 65 x 46 x 15.6 x 4 draught. Designed and built by Lawley. Very attractive craft. One double, two single rooms, large saloon, bath room, etc.

NO. 232.—Exceedingly fine steel auxiliary schooner, 84 x 18.6 x 4.9 draught. Splendid vessel for Southern waters. Liberal accommodations. Equipped with Craig 40 H. P. engine, electric lights.

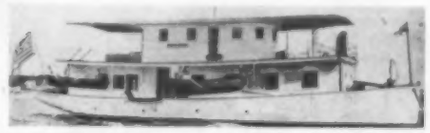
NO. 1500.—Special. Champion Class M, cruising and racing sloop. 60 x 41 x 12 x 8. Absolutely first-class throughout, perfectly fitted and appointed. Inspection and offer solicited.

NO. 2900.—Modern light draught auxiliary ketch. 80 x 64 x 20 x 2 ft. 6 in. draught. Roomiest vessel of her type and size. 30 H. P. gasolene motor. Fully equipped. Immediate delivery.

NO. 345.—Twin screw gasolene power houseboat, 90 x 21 x 2 ft. 6 ins. draught. One of the roomiest and best-appointed craft of her type. Particularly suited for Southern waters.

NO. 362.—Desirable twin screw gasolene power houseboat. 125 x 24 x 2 ft. 6 ins. draught. Liberal accommodations. All conveniences. Specially suited for Southern waters.

NO. 432.—Twin screw gasolene power houseboat. 75 x 20 x 30 ins. draught. Six staterooms, saloons, bathroom, etc. Roomiest craft of her size. All conveniences, fully found. Standard engines.



NO. 298.—Modern 75-ft. twin screw gasolene power houseboat. Five staterooms, saloon, bath room, all conveniences. Standard engines. Completely furnished and equipped.

NO. 346.—Attractive steel steam houseboat, 115 ft. over all, 17 ft. beam, 2 ft. 3 ins. draught. Best vessel of her type and size for use in Southern waters. Six staterooms, saloons, etc., etc., all conveniences.

NO. 367.—Desirable twin screw gasolene power houseboat, 85 ft. over all; has liberal accommodations and fitted out in best possible taste. Supplied with all conveniences.

NO. 331.—Modern gasoline power houseboat. Particularly suited for Southern waters. Dimensions 68 x 17 x 2 ft. draught; liberal accommodations. Location New York City.

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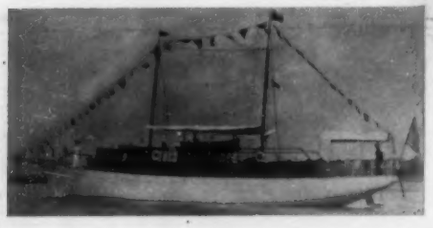
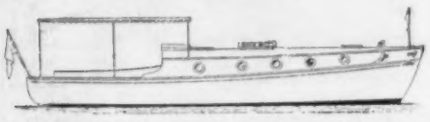
NO. 339.—Shoal draught cruising motor yacht, 68 x 58 x 12.4 x 3.8 draught. Strongly built, seaworthy, perfect condition, double stateroom amidships, 9 ft. saloon, four berths, bathroom, etc., 37 H. P. Craig engine. Completely and expensively fitted and furnished. Price low.



NO. 454.—High-grade gasoline cruiser. Especially suited for Southern cruising, 72 x 56 x 13 x 5.6 draught, launched 1906. Exceedingly comfortable quarters. 70 H. P. Lamb engine. Absolutely first-class in every respect, ready for immediate delivery.



NO. 2670.—Sacrifice. Condition guaranteed. Attractive and exceptionally roomy hunting cabin cruiser. 35 x 34 x 9.6 x 32 in. draught, sleeps six. Complete in every particular. 18 H. P. Standard engine. Fine craft for Southern waters. A one-man boat; steering and engine control aft. Price very low for immediate delivery.

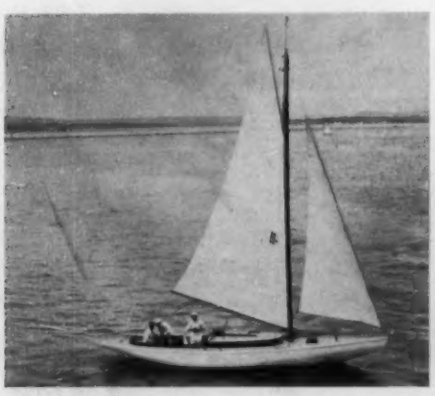
NO. 1870.—Special. Modern keel auxiliary cruising yawl, 50 x 35 x 14.6 x 5.6. Excellent accommodations. 30 H. P. Globe gasolene motor, speed 8 miles. Completely found, ready for delivery.

NO. 2028.—Special. Fine new hunting cabin criuser, 40 x 36 x 9 x 3 ft. draught. Beautifully finished. Completely found. 20 H. P. 20th Century engine. Condition guaranteed. Immediate delivery.

NO. 1890.—Sacrifice. Modern, thoroughly up-to-date auxiliary yawl, 40 x 30 x 13 ft. 6 in. x 4 ft. draught; 24 H. P. Clifton engine. Double stateroom, saloon, etc., sleeps seven easily. Everything practically new, 1908. Absolutely complete in every respect.

NO. 451.—Thoroughly modern up-to-date C. B. trunk cabin and cockpit auxiliary yawl, 46 x 30 x 13 x 5 ft. draught. One of the best of their type and size; fine accommodations, all conveniences, beautifully appointed and fitted.

NO. 383.—Handsome twin screw motor yacht. Length over all, 56 ft.; beam, 12 ft.; draft, 3 ft. 6 ins. Built in 1906 in best possible manner under personal supervision of owner. Framed with oak with hard pine planking, having a torpedo stern. Trunk cabin extends from forecastle to after deck, which is flush, having a small trunk forming two lounging seats. The boat is steered from the bridge, having electric switches there for stopping engines. Owner's accommodations consist of one stateroom forward and double stateroom aft, also main cabin with two berths and two transoms; interior finish is mahogany and white. Over 6 ft. headroom throughout the boat. There are two owner's toilets and one for crew. Engines in first-class condition, having been completely overhauled this season; two 20 H. P. 4-cylinder, 4-cycle "jump spark" engines, giving cruising speed of 11–12 miles per hour. Electric lights supplied from dynamo and storage batteries. Complete inventory, including two tenders, anchors, cables, lights, awnings and the usual fittings below deck, including lights, carpets, rugs, tables, cushions, bedding, linen, crockery, etc. Boat is now in commission in perfect condition, ready for immediate delivery, and needs no money spent on her. Terms very reasonable for quick sale or charter.



FOR SALE.—Fast knockabout Seawanaka Grilse, 33 ft. over all and 21 ft. waterline, 8 ft. beam, 4 ft. draft, sail area 580 sq. ft. Designed by Sterns of Marblehead, and built by Holland & Hollinsworth of Philadelphia. Was one of three built by above firm, but on account of expense could not compete with the cheaper ones—being built very strong and able. Keel of iron, center board fits inside of same, has two suits of sails (one new this year) by McClellen, the other by Wilson. Spinnaker and balloon in good condition, anchor, cable, riding light and side lights, large oar, and a fine awning reaching from mast to stern, one buoy, galvanized pail, new rigging this year. New sail cover last year. Boat has had the best of care. Will sell cheap before laying up. In fact the boat is in such good condition it would not be necessary to expend a cent on it. John N. Champion, New Haven, Conn.

FOR SALE.—Keel knockabout, 36 ft. over all, 25 ft. waterline, 9 ft. beam, 5 ft. draft, 3,500 lbs. outside lead ballast, 800 inside lead ballast. Eagle engine installed under cockpit capable of driving yacht five miles per hour. Good sized cabin and cockpit. Boat is copper fastened throughout and an able sea boat. Is in splendid order, having had the best of care. Price extremely low if sold before laying up. Frank H. Macy, Box 34, New Bedford, Mass.

STEAM HOUSEBOAT FOR SALE—90 ft. x 18 ft. x 3 ft. 6 ins. Round bottom, good freeboard. Built in 1906. Two decks, five staterooms, bath. Splendid sea going boat. Full inventory, including launch and two boats. Speed 9 to 11 miles. Very desirable, and is inspectable in New York. Owner will consider taking in part payment a 35 ft. to 50 ft. gasolene launch. Inquire at MANNING'S YACHT AGENCY, 17 Battery Place, N. Y. City

GASOLENE BOAT HYACINTH FOR SALE, 42 x 9½ hull, O. A. 53 x 10½. Draft of hull 10 in., of skeg 27 in. 12½ h.p. Merchant's engine, 4 cycle, jump spark. Galley, toilet, full equipment. Make good houseboat. JOHN E. HARRIS, Saint Francis, Florida.

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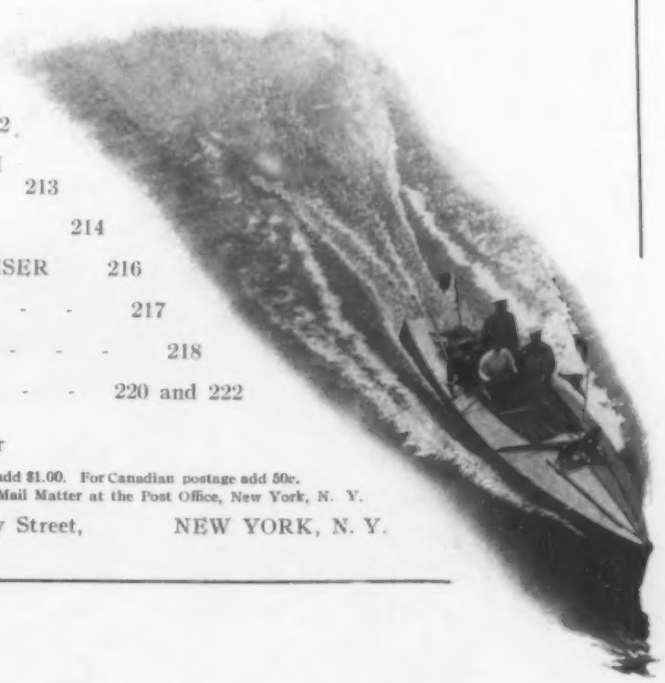

LAWRENCE PERRY, Editor

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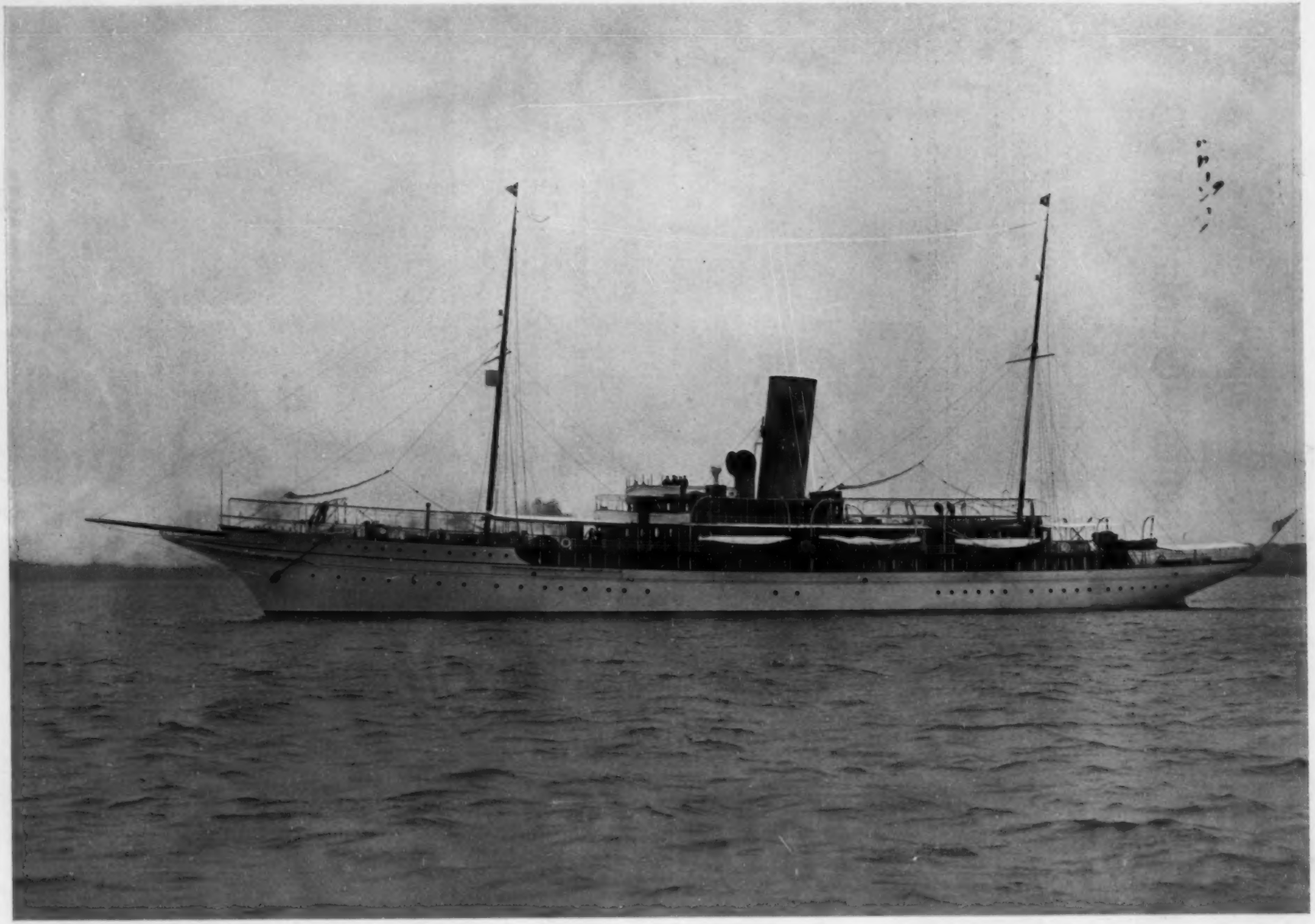

IOLANDA. THIS VESSEL, LAUNCHED THIS YEAR, IS THE SECOND LARGEST PRIVATELY-OWNED STEAM YACHT IN THE WORLD. SHE COMPARES IN SIZE WITH OCEAN LINERS OF A FEW YEARS AGO, BEING 305 FEET LONG, 37 FEET 6 INCHES BEAM, 23 FEET DRAFT. AS THE ILLUSTRATION SHOWS, SHE HAS FIVE DECKS AND A FLYING BRIDGE, A MARCONI WIRELESS SYSTEM, THREE INDEPENDENT ELECTRIC LIGHTING PLANTS, AND HAS BUNKER CAPACITY OF 6,000 TONS OF COAL, GIVING A CRUISING RADIUS OF 6,000 MILES AT A SPEED OF 12 MILES PER HOUR. WITH ALL HER BOILERS IN ACTION SHE HAS MADE AT THE RATE OF 19 KNOTS OVER A MEASURED MILE.

YACHTING

VOLUME IV. NUMBER 4

October, 1908

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START OF FIRST DAY'S RACE. FROM LEFT TO RIGHT, PIRATE, JAN, PAWNEE.

Dixie II Wins the Gold Challenge Cup

FRESH FROM HER TRIUMPH OVER WOLSELEY-SIDDELEY ON LONG ISLAND SOUND, THE WINNER OF THE HARMSWORTH CUP WENT UP TO CHIPPEWA BAY AND CAPTURED THE GOLD CHALLENGE PRIZE, THE MOST FAMOUS OF AMERICAN POWER BOAT TROPHIES—ROUGH WERE THE SEAS AND HIGH THE WINDS ON THE RACE DAYS, BUT THE SCHROEDER BOAT, EMBODYING DESIGN AND POWER, WAS TRIUMPHANT

By FRANCIS J. LINDSAY

Photographs by Edwin Levick

DECISIVE and convincing was the defeat of Chip III by Dixie II in the power-boat races for the Gold Challenge Cup on Chippewa Bay in the Thousand Islands. Built in accordance with the most advanced ideas as to the effect of design on speed, driven by engines which had been under the eyes of experts in exhaustive tests extending through several months, she simply played with the defender of the cup and won the three races as she pleased.

Four years had the Chippewa Bay Yacht Club been successful in winning the trophy of the American Power Boat Association. This organization had officers who were accustomed to look ahead, and when they set about preparing plans for the defense of the famous prize they proceeded in a workmanlike manner and left nothing undone that would insure success. This year saw no deviation in this course. Chip III was a good boat, a grand boat; next to Dixie II there was no other racer in her class. But this same Dixie had Chip's number, as the saying is, and the St. Lawrence yachtsmen simply had to stand by and see their well-formed plans go for naught.

SPECTATORS IN PLEASURE CRAFT ANCHORED OFF JUDGE'S BOAT.

And what a boat Chip III! Beamy, powerful in appearance, with rows of exhaust pipes along either side of her engines bearing strong resemblance to organ pipes, she suggested the very epitome of power. And she snored along through the water with a roar like the voice of a tornado. The visual impression of physical energy was as striking as the aural impression, and between the two the spectator would have been willing to hazard the opinion that Chip III was reeling off at least 40 knots an hour, whereas she was not going more than two thirds as fast as the sleek, smooth-moving Dixie. This boat made little fuss in the water, her engines were well nigh "voiceless," and one had to study his watch for an adequate idea as to the speed which the craft was making. The races were attended by all the circumstances which regattas of such importance deserved. There were more pleasure craft gathered to witness the events than ever attended a motor-boat race in this country, and with the judge's boat anchored off Cedar Island instead of in a remote position everyone had a chance to see and be seen. The Chippewa Yacht Club provided the house boat Lysander for the use of members and invited guests, and a large and enthusiastic party viewed the contests from the deck of this boat.

DIXIE UNDER FULL HEADWAY. SHE WON THE GOLD CUP WITHOUT DIFFICULTY.

The American Power Boat Association officers were censured for holding the race at a time of the year when squalls are frequent on the St. Lawrence—July or September being pronounced as the most propitious time for such events—but otherwise no one had a complaint to make, the races were fairly conducted and fairly contested and, in short, everything was conducive to the good of the sport.

As a delightful prelude to the events, a number of motor boats, including such cracks as Irene II, Marge, Eronel, Tip Top, Puffin II and others, left this city on August 11 and started for the Thousand Islands. On the way up the Hudson, the fleet, which left the Columbia Yacht Club at the foot of West Eighty-seventh street, were joined by other craft until a fleet of nearly a score started from Albany along the Erie Canal to Syracuse. There was plenty of sport on the way up. The natives along the banks of the raging ditch came out in ever-increasing numbers to view this inland marine procession and foraging incidents, adventures with mischief-loving canalers or surly lock tenders and other events incidental to such a cruise gave the voyagers much to talk about when at last they reached their journey's end. From Syracuse the boats went through the Oswego Canal to the city which bears that name, and thence into Lake Ontario. Down this turbulent inland sea they traveled, and Clayton was reached without untoward incident. Clayton being at the head of the St. Lawrence River, the way to Alexandria Bay and the Thousand Islands was clear. The cruisers found themselves lost in the midst of the immense concourse of motor craft which had assembled for the important series of races, but they received a greeting which showed that their importance was appreciated and their presence welcomed.

On August 20 the gun for the start of the first race was fired at three o'clock, and the "get-away" was undoubtedly the prettiest thing ever seen in motor-boat racing. The eight fliers shot over the line, with Dixie II holding the advantage. She never lost it. At the end of a half mile she had forged 200 yards in the lead. When the racers had gone half-way around the course they ran into a terrific rainstorm which somewhat quieted the surface of the river.

This was the first race in which Chip III had started, and it was the first view the public had been permitted to have of her. She created a terrible fuss in the water and did not take kindly to the high waves, which impeded her speed more than any of the other contestants. The exhausts were badly placed, for this weight, even though very slight, being high and on the extreme side, caused her to sway far more than if they had been in the center of the boat. This race was won by Dixie II, whose time was 1 hour 1 minute and 38 seconds, or 19 seconds better than the time of Chip III.

The data of the first race follow:

Name.	Start.	First Round.	Finish	Elapsed Time.	Points.
Pawnee	3.00	3.36.18	4.14.22	1.14.22	3
Pirate	3.00	3.33.34	4.05.39	1.05.39	6
Dixie II	3.00	3.31.01	4.01.38	1.01.38	8
Chip III	3.00	3.31.46	4.01.57	1.01.57	7
U. S. A.	3.00	Did not finish	.....	.....	..
Duquesne	3.00	Did not finish	.....	.....	..
Stranger	3.00	3.34.35	4.08.35	1.08.35	4
Jan	3.00	3.33.37	4.07.11½	1.07.11½	5

The float upon which the judges and other officials were was anchored about 250 yards off Cedar Island, and from this the course lay up the river to a buoy south of Whiskey Island, back down the Canadian Channel to another buoy at the foot of Cedar Island, then back to the starting point. The boats went around this course twice, making it a total race of 30 miles.

Dixie II triumphed in the second race. Although only a few seconds ahead of Chip II in crossing the finishing line it would have been easy for her to have won by about 10 minutes. But she really played with the other boats and on several occasions eased down to allow Chip to catch up and would then run away from the latter as if she was at anchor. All the racers got away to a good start except the U. S. A. and Stranger, both of which lagged a little, but before the boats had gone an eighth of a mile Dixie had assumed a commanding lead which she never let slip away. Owing to the extremely rough water the start in this race was delayed until four o'clock, but nothing was gained by the wait.

The time for the race follows:

NAME.	Start.	First Round.	Finish.	Elapsed Time.	Points.
Pawnee	4.00	4.35.45	5.11.25	1.11.25	3
Pirate	4.00	4.33.34	5.07.06	1.07.06	5
Dixie II	4.00	4.29.12	4.58.13	58.13	8
Chip III	4.00	4.29.20	4.58.19	58.19	7
U. S. A.	4.00	Did not finish	.....	.....	..
Duquesne	4.00	Did not finish	.....	.....	..
Stranger	4.00	4.34.39	5.08.42	1.08.42	4
Jan	4.00	4.33.27	5.05.44	1.05.44	6

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CHIP III SNORING INTO THE WAVES WITH HER "ORGAN-PIPE" EXHAUSTS. SHE WAS SECOND TO DIXIE IN EACH OF THE THREE RACES.

START OF THE THIRD RACE IN A LUMPY SEA.

The second heat was noteworthy for two reasons. The first was that both Dixie and Chip covered the 30 miles in less than an hour; the second that Pirate took exactly the same time, even to a second, to cover the first half of the course on this day that she did on the first. On each occasion she required 33 minutes and 34 seconds to travel 15 miles.

On the last day Dixie won again amid a great tooting of whistles and other salutes, and so cinched the Gold challenge cup for the Thousand Islands Yacht Club, which she represented, and over whose course, near Alexandria Bay, the races will be held next year.

Owing to the extremely rough water the judges postponed the start until 5 o'clock on the last day; but the waves had not abated any at that time. All the contestants got away quickly at the start, but before Dixie had gone half a mile she broke down and Chip obtained a lead of at least a mile, while Dixie lay tossing about in the mountainous waves for over two minutes. When started again Dixie soon overhauled the other racers and on the back stretch she was really running at full speed and led by a mile. Then she was eased down and simply played with Chip, her only competitor, after that. Shortly after starting Stranger broke her clutch and was towed in by a launch belonging to Commodore Inglis.

EN ROUTE TO THE ST. LAWRENCE. TIP-TOP AGROUND IN THE RAGING CANAL.

The time for the races on August 22 was as follows:

Name.	Start.	First Round.	Finish.	Elapsed Time.	Points.
Pawnee	5.00	5.35.14	6.10.10	1.10.10	4
Pirate	5.00	5.33.47	6.06.17	1.06.17	6
Dixie II	5.00	5.29.23	6.00.25	1.00.25	8
Chip III	5.00	5.30.45½	6.00.58	1.00.58	7
U. S. A	5.00	Did not finish	.....	.....	..
Duquesne	5.00	Did not finish	.....	.....	..
Stranger	5.00	Did not finish	.....	.....	..
Jan	5.00	5.33.32	6.06.47	1.06.47	5

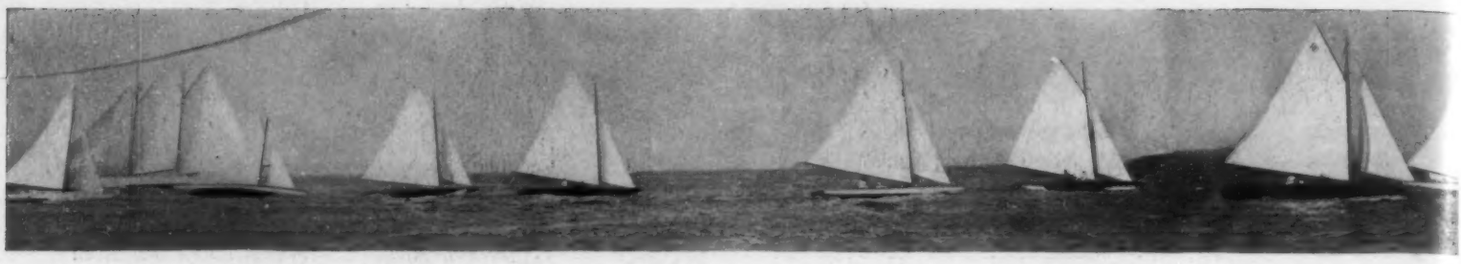
The following judges officiated during the entire series of races: J. H. McIntosh, representing the American Power Boat Association; R. H. Eggleston, representing the Challenging Thousand Islands Yacht Club; and S. G. Averell, representing the defending Chippewa Yacht Club. Ernest Serrell was the measurer, but as the only requirement for qualifying this year was that the boats must not be over 40 feet water line, no records of the engines were made.

The official entries and the points accorded to each at the conclusion of the races follow:

Racing Number.	Name of Boat.	Club Represented.	Owner.	Points Won.
3	Dixie II	Thousand Island Yacht	E. J. Schroeder	24
4	Chip III	Chippewa Yacht	Wainwright & Hawkins	21
2	Pirate	St. Lawrence River Yacht	C. N. Pencock	17
8	Jan	Gananoque Yacht	Geo. Hasbrouck	15
1	Pawnee	Clayton Yacht	I. P. Gillespie	10
7	Stranger	New York Athletic	F. G. Bourne	8
5	U. S. A	Riverton	I. S. Sheppard	..
6	Duquesne	Frontenac	Roland Pencock	..

MOTOR BOATS GETTING INTO POSITION TO ENTER LOCK.

IN THE LOCK. WATER FLOWING IN CAUSING BOAT TO RISE TO A HIGHER LEVEL.



RACING CLASSES, MARBLEHEAD RACE WEEK. ALMOST EVERY TYPE

Marblehead Race Week

By ROBERT MEDILL McBRIDE

Photographs by J. A. Burnham, Jr., James Huntington and E. P. Adams

IF anyone thinks that the motor boat has killed or even caused a serious diminution of interest in sailing yachts let him go to Marblehead during Race Week. It was my good fortune to spend the week this year as a guest of Commodore Morss on his schooner Dervish, and to witness the events of the greatest race week ever held in New England, and in some respects the most notable ever held anywhere in the country. In four days, Wednesday, Thursday, Friday and Saturday, there were nearly 500 starters. On Wednesday alone the entries totalled 130. A contributory factor to its success and an event of picturesque character was the rendezvous of the New York Yacht Club, the squadron of this club making Marblehead its last port of call. The fleet arrived on Thursday, August 13, the fourth day of Race Week.

THE HOME OF THE SMALL BOAT. THE CORINTHIAN YACHT CLUB.

Although two other clubs acted as host, the history of Race Week at Marblehead is practically a history of the Corinthian Yacht Club for that period, for it is the prime moving factor, taking charge of four out of six days' racing. For many years the race week on the calendar of the Corinthian Yacht Club was almost a dead letter. Of course, there was a semblance of activity, because it was incumbent upon the yacht club that stood as sponsor for small-boat racing in New England to furnish the opportunity to its members and neighbors to settle the question of superiority of design and of seamanship. What I mean is that Race Week had become a mere perfunctory event, as racing does in many clubs that are fast becoming moribund.

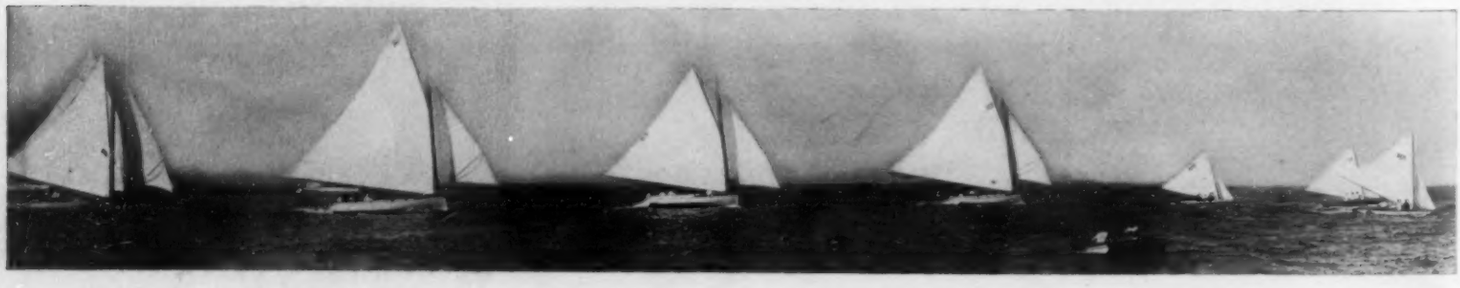
The Corinthian Yacht Club is the small-boat racing organization in Marblehead, confining itself to small-boat events entirely; and the Eastern Yacht Club, the parent organization, practically to racing large craft only. Thus the sport is divided between the clubs.

Well, several years ago the real shell backs of the Corinthian Club, deploring the lethargy of the racing element, decided that they wanted a change in management and elected Henry A. Morss, who had proved himself a thorough sailor, commodore, and live men in the other offices and at the head of committees. The stimulation of having live men, real sailors, at the head of things, was immediately manifest. The club took on new life, and there has been developed since as keen an interest in racing as can be found anywhere in the country, with a consequent increase in the general interest of the club. Indeed, I have never met a keener body of racing men anywhere.

In organizing for Race Week, the regatta committee do not wait for entries to drift in but follow up the yacht clubs of Massachusetts Bay persistently, interesting them in the series and by their enthusiasm and through the memory which the yachtsmen have of several previous successful meets of the kind have little difficulty in listing an immense number of contestants.

The first day, Monday, was in charge of the Eastern Yacht Club, the largest organization in Marblehead and the oldest. On this day there were starts in four classes. In Class M, Dorello, the new sensational Owen-designed sloop, showed a clean pair of heels to her rivals. She is a beautiful little ship, graceful in line and speedy as a bird. I was struck with her strong resemblance to Seneca and Avenger, and she seems to have within her the speed of these boats. Two of the remaining three classes were Class Q and the *Sonderklasse*.

The second day's racing was in charge of the Boston Yacht Club, which maintains an important station at Marblehead, as well as several others in Massachusetts waters. Sixty-two boats in various classes crossed the line in response to the gun. The keen rivalry among the leaders in Class Q—Eleanor, Achilles and Little Rhody—furnished excellent sport, as a win for any one of these three boats meant much in the contest for the Lipton Cup, for which Eleanor and Achilles each held a leg. It was an open contest of the Yacht Racing Association of Massachusetts



OF SMALL BOAT WAS REPRESENTED IN THE VARIOUS EVENTS.

Bay and so the result counted for percentage for this trophy.

The following morning the first race of the Inter-State Dory series of three races was run off. This was for the Walter E. Knight inter-State trophy, presented last spring by Mr. Knight, vice-chairman of the South Boston Yacht Club, as a perpetual challenge trophy for members of the Massachusetts Racing Dory Association and owners of dories enrolled in any recognized yacht club of Maine. Each year a series of races is to be sailed either in Massachusetts or Casco Bay. The challenger this year was the Portland Yacht Club, represented by Lob II, Sister, Oaxaca and Coming II, and the defenders selected through competition from the clubs of Massachusetts Bay were Barbara, Raggylug, Pointer III and Elizabeth F. Whether due to the superiority of the Massachusetts sailors or to the fact that the Portland men were accustomed to heavier weather than they encountered in this series, the fact remains that the representatives from Maine were completely outclassed and the cup remained for another year in Massachusetts.

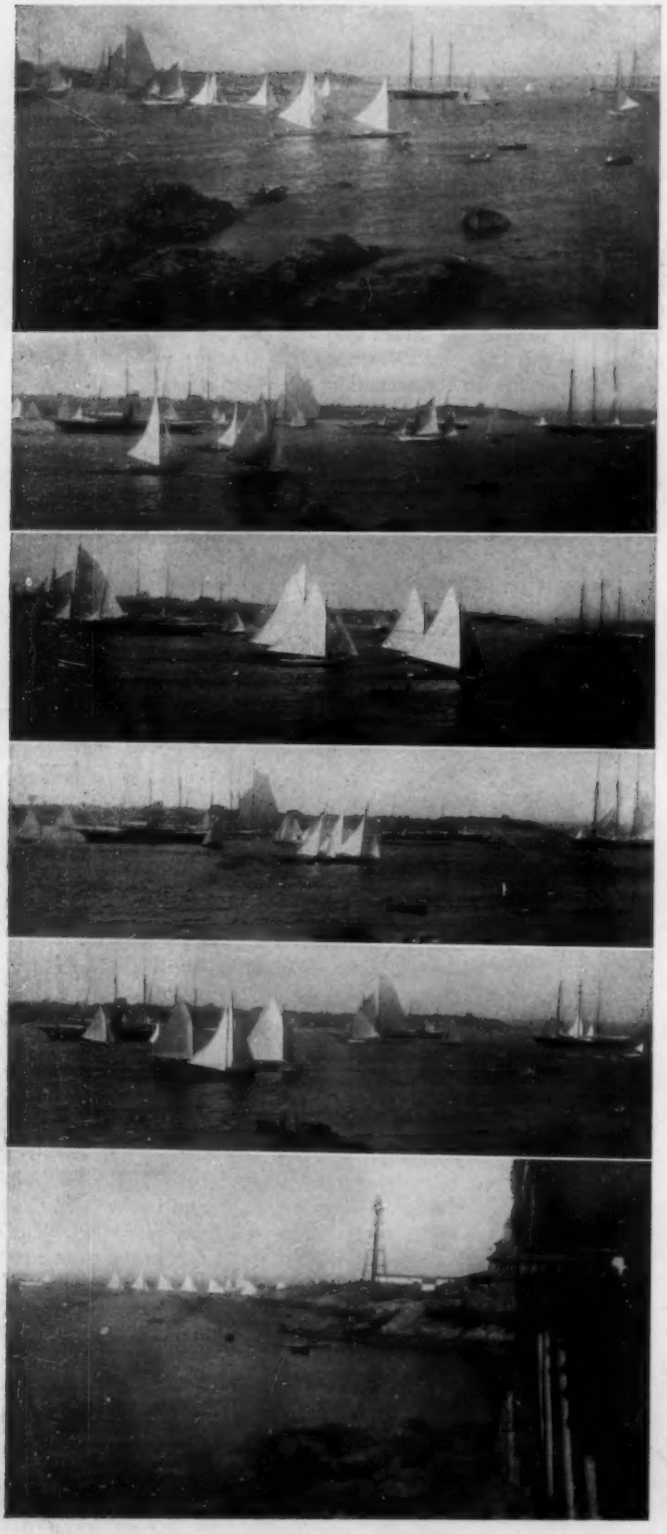
The standing for the three races was: Raggylug, 262.5; Barbara, 243.7; Elizabeth F., 225; Lob II, 162.5; Sister, 143.75; Pointer III, 137.5; Oaxaca, 87.5; and Coming II, 87.5.

On Wednesday the Corinthian Yacht Club series began, and it proved the greatest racing day ever held in New England, and probably anywhere in the country. The previous record of this club made last year of 117 entries was eclipsed when 130 yachts in 21 classes, ranging in size from tenders to 40-footers, crossed the line at three-minute intervals. It was a sight to inspire the most hopeless landlubber. On Thursday this performance was practically repeated. One hundred and twenty-six boats in twenty-two classes were sent off before a brisk sou'west breeze. For more than an hour and a quarter the timer of the regatta committee had his eyes glued on the chronometer on the club veranda, dispatching classes at three-minute intervals. It was somewhat novel to start races from a piazza and to have the stake marking the near end of the line within 150 feet. But the Corinthian Yacht Club house is on a ledge of rock projecting out into the harbor, and 50 feet beyond this ledge is deep water. Thus the members of the club can witness the start and finish of every race.

The starts on Thursday were the most remarkable I had ever seen. In many of the classes more than a dozen yachts came to the line, and as they bore down with the wind almost dead astern, there were some exciting starts, not to mention many bad mix-ups, but never a protest was there. No mug hunters these. They were yachtsmen racing for sport. The eminent fairness of the participants and the judges in regard to fouling and to technicalities was seen on Friday's racing, when there was almost a flat calm at the start. In fighting for the windward berth and a quick start after the gun, some of the boats were carried over the line before the signal. Since they had hardly steerage way and as the tide was carrying them, they had difficulty in beating back for a new start. In the meantime the other starters in the class had made some progress along the course. After a fruitless attempt had been made in the zephyr breeze to recross the line, the committee megaphoned to these boats to go ahead and that it would be considered a start. They felt that they had been penalized enough and they would be absolutely out of the running if they were to spend longer in going back and over. To add to the delights of Thursday's racing, the New York Yacht Club squadron arrived in the afternoon. One by one the visiting yachts rounded Marblehead Neck and swung up into the harbor, the windjammers under a towering spread of canvas. Crowds lined the bluffs of Fort Sewall on the north shore of the harbor and Marblehead Neck on the south to watch the incoming fleet. That night there was a band concert and dance at the Eastern Yacht Club, a weekly fixture for the entertainment of members and their friends.

EASTERN YACHT CLUB, WHICH ENCOURAGES LARGE BOAT RACING IN NEW ENGLAND.

At eight o'clock on Friday morning, by gun signal from the flagship of the New York fleet, every large yacht in the harbor, and many smaller ones as well, dressed ship, and a sombre, morning scene was suddenly transformed into a glow of color and life. One hundred and twenty-four boats started in the third Corinthian race of the mid-summer series on Friday afternoon. The wind was light, and the yachts were sent over an inside course of 6¼ miles. An advantage that Marblehead has is that it has a course for every kind of weather. The inside course extends from a point off the club house in the harbor to out in the bay, and is fully protected by the mainland opposite and a number of islands. Except when the weather prevents, through storm or



1—RACERS AS VIEWED FROM THE PORCH OF THE CORINTHIAN YACHT CLUB. REGATTAS ARE STARTED OFF THE ROCK AT THE LEFT OF THE PHOTOGRAPH.

2, 3, 4, 5—STARTS OF RACES IN VARIOUS CLASSES ON THURSDAY OF RACE WEEK, WHEN 126 BOATS CROSSED THE LINE.

6—ROCKING-CHAIR SAILORS ON VERANDA OF CORINTHIAN YACHT CLUB VIEWING THE REGATTA. THE RACERS ARE WORKING PAST MARBLEHEAD NECK.

calm, the boats are sent out off Marblehead Neck in Massachusetts Bay. Here is a body of water as open almost as the ocean itself. The wind seldom fails here, and the yachtsmen of those parts say that even in mid-summer, when so many calm days are on the Sound and other protected waters, there is usually a breeze from some quarter, and this is why many yachtsmen advocate holding the races for the America's Cup off Marblehead instead of Sandy Hook.

Friday night there was a band concert at the Corinthian Yacht Club, with a dance, and as usual there was a great gathering. In honor of the New York Yacht Club squadron and of the fleet that had gathered to participate in the events of Race Week the town prepared a big fireworks display and illumination.

On Saturday, the Corinthian Yacht Club closed the series with a race in which 112 boats crossed the line. This made a grand total of 483 starts in four days, a record that I believe is unequaled in this country. A smoker at the Corinthian Club in the evening, at which good fellowship reigned supreme and at which the trophies won during the week were presented, concluded the most successful period in the history of Marblehead racing.

The spirit shown in all these races was excellent. Not a protest was entered, although many fouls were made, due, many of them, to the crowded harbor and consequent lack of room at the starting line. This lack of protest and sportsmanlike attitude was characteristic of New England racing men. I heard one of the dory men say that he had never known of a protest being made at any of the dory races at any time, and that such action would be against the ethics of the game.

I was struck with the great diversity of men and craft that participated in the racing. One of the regatta committee told me that a strong factor in the successful race meets of Massachusetts Bay was the racing of handicap boats. The craft in these classes were drawn from old racing classes that had lost their entity, and they would otherwise be lost to racing. The fact that there were a number of them and that each one contained from half a dozen to a dozen entries indicated how the owners of former class boats appreciated the opportunity given.

I have spoken of how large was the dory class and what a great lot of rooters the owners of these craft were. Any night a group of them could be found recounting the gales which they had weathered and the fearlessness with which the owners raced their small charges.

Another very interesting and, I was going to say, amusing class was the Cape Cats. What big brutes these boats are! They appear to be almost as broad as they are long and carry enough canvas to make a circus tent. They were manned by large crews for their size, and in heavy weather one would see from four to a half dozen men pulling for all they were worth on the main sheet when it was being trimmed in. It is a great class, and the men who sail in it are real sailors. I wish there were more like them.

The great rivalry in Class Q and in the *Sonder* boats is well known. Eleanor, by finishing first in four out of the six races, won the series and also clinched the Lipton trophy for the season's racing.

In the *Sonderklasse* Ellen and Bandit split even on the series, each making two wins. The great interest in this class is chiefly due to the international aspect of it. It will be remembered that the international races with the Germans in 1906 was won by an American boat, and that of 1907 in German waters was taken by the Germans. Next year's racing at Marblehead will decide the rubber.

All told, the Race Week at Marblehead was an object lesson to other organizations as to what can be done when live racing men are placed at the head of things to organize racing interest. The same thing could be done in other parts of the country—that is, the same enthusiasm could be had, if not quite the same number of entries—if the requisite effort were made.

DORIES RACING IN NEW YORK'S LOWER BAY. THIS CLASS WAS THREATENED WITH DISRUPTION THIS YEAR BECAUSE SOME OF THE CRAFT WERE LAP STREAKED WITH "PAPER-LIKE" PLANKS.

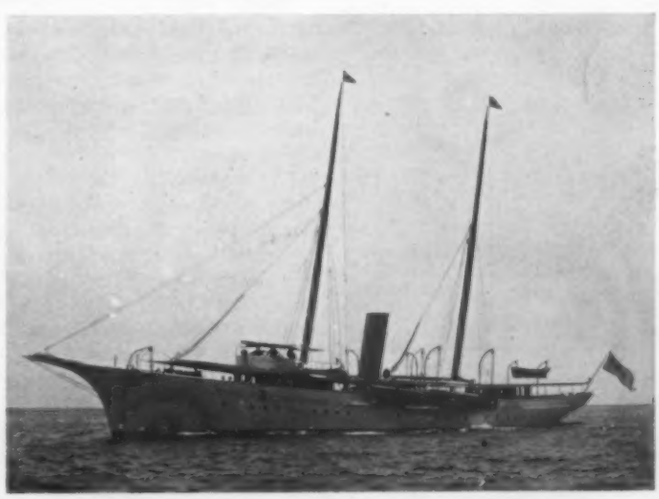
The Month in Yachting

Photographs by Edwin Levick, F. A. Walter and James Burton

A WILD and wooly yawp comes from Cleveland in regard to the conduct of the Lipton Cup race on Lake Michigan several weeks ago, and in the face of it, it would seem incumbent upon the Chicago yachtsmen, in whom was invested the responsibility for handling this small boat classic of the Middle West, to heave-to for a moment and make explanatory signals to the judge's boat, which is to say the public.

What Cleveland yachtsmen, supposed to be men of discernment, are asking—just how pertinently we know not—is: "Was it a yacht race which was pulled off in Chicago last August, or a game designed to demonstrate just how easily the Lipton trophy could be kept in the Windy City without half trying?" Of course I don't pretend to know all the facts; in fact I am not sure that what I *do* know are facts at all; but facts or fancies, here they are fresh from the scuttle-butt, so to speak.

In the contest for the cup offered for competition for 21-foot sloops by Sir Thomas Lipton some years ago, there were nine entries. All of them except Cleveland, representing the Cleveland Yacht Club, were Chicago boats; thus far, I take it, the facts are uncontrovertible. Now Cleveland was pretty well thought of as candidate for first honors, which I dare say cannot be denied, either. In the first race Cleveland started for the line at the start ahead of the rival yachts. Two sloops, however, La Rita and I. A. C., were astern and far to windward of the Lake Erie craft. They had been hung up in this position, according to the charges, several minutes before the starting gun sounded. When the signal to get away was heard, these two boats, it is alleged, bore down to windward of Cleveland with sheets started, and *crossing outside of the buoy* which marked the starting line, bore down upon Cleveland "with the obvious intention of interfering with her"—I quote the words of my informant. But Cleveland going close-hauled, was footing too swiftly. When the other two sloops were so close that they almost touched beams with the racer from Cleveland their bowsprits were just abaft her main shrouds. Cleveland pulled out from them and finished first in runaway fashion regardless of supposed unfairness at the start.



COMMODORE GERRY'S ELECTRA, WHICH FOR THE TWENTY-SIXTH YEAR TOOK OUT A DISTINGUISHED PARTY TO THE SPECIAL NEW YORK YACHT CLUB RACES OFF NEWPORT. NAVAL OFFICERS REFER CAUSTICALLY TO HER SUMMER CRUISING ITINERARY.

Now, it is maintained, as stated above, La Rita and I. A. C. did not cross the starting line at all, but nevertheless they continued in the race, and when their skippers pleaded that they had mistaken the finish line for the starting line, the regatta committee permitted them to have their rating in the race. The second, third and fourth races were carried through without any incident displeasing to the well wishers of Cleveland, but on the fifth and last race of the series, in weather just suited to the sloop from the lower lake, things happened, or rather are alleged to have happened, which set all the Cleveland waterfront ajog when the news arrived there.

Barth, skipper of Cleveland, made up his mind to fight shy

of all the other racers, and so the starting gun found his charge way down to leeward, whereas the other racers were all up at the windward end of the line. Just before the start, this sloop was bearing for the line and came up on it too soon. Therefore, she sheered off and sailed along the line, killing time until the signal should sound. Not until the echoes of the starting gun were reverberating over the lake, according to her skipper and crew, did she tack across the line. In crossing she was close to the judge's boat, located at the windward end of the line. She immediately began to work out to windward of the other racers and six minutes after the start she had weathered the entire fleet.

Now comes the funny part of the Clevelanders' allegation. Having obtained this decisive advantage, and being squared away on her course, she was recalled by the judges' boat and informed that she had crossed the line one-fifth of a second too soon. *One-fifth of a second!* Cleveland yachtsmen maintain that the judges' boat was at no time anchored during the start, and that on the day of this race there *was no stop watch aboard.* I do not subscribe to this—it seems altogether too extraordinary; I am merely handing along the story which the Cleveland men brought back with them from Chicago.

Well, Cleveland recrossed the line and started again. She had passed five of the Chicago boats before she finished. Capt. Barth, so the yarn goes, went to the judges after the race and made a verbal protest. He was informed that he would have to submit his complaint in writing. As he sat down to write he was told that he would have to hurry the kick along, as the hour in which protests must be made was nearly up. At least this is what Cleveland men who were present at the race charge. While writing the protest, it is further alleged, the judges held their watches on Barth. Half an hour or so later, a Chicago skipper came in to submit a protest, which was accepted without a word; so goes the complaint. About this time Barth received a typewritten letter signed by the three judges, W. L. Shepard, F. A. McFarland and Thomas H. Webb, notifying him that his protest had been disallowed. No reason for this action was appended.

CORONA, CLEVELAND H. DODGE'S SCHOONER, WHICH WAS SAILED IN NEW YORK YACHT CRUISE BY PERCY PYNE "FOR THE GOOD OF THE SPORT."

Commodore Worthington, of the Cleveland Yacht Club, is reported as thoroughly incensed, and is carrying the protest through every court of appeals which exists. They are: the regatta committee of the Columbia Yacht Club; the regatta committee of the Lake Michigan Yachting Association, and the last resort will be the Yacht Racing Union.

One thing is certain, these charges constitute a matter which should be cleared up, and the sooner the better. If the judges in charge of the Lipton Cup event were at fault, that fact should be demonstrated in the least possible time, and per contra, if the Cleveland charges are proved unwarranted, the sooner the announcement of that fact the better.

BARBARA, WHICH WON IN THE 30-FOOT-40-FOOT CRUISING CLASS IN THE ATLANTIC YACHT CLUB'S FIRE ISLAND MOTOR BOAT RACE.

While this controversy is raging, Cleveland shellbacks are paying all sorts of compliments to the New England yachtsmen whom they met on Massachusetts Bay in the contests for the Summer H. Foster Memorial Trophy. Although Hayseed, representing Cleveland, won in three straight heats against Dorchen, they were treated with as much courtesy and open-hearted hospitality after they had triumphed as before the series began. This is sport in the highest sense of the word and makes for the general good of yachting.

Why, I don't know, but the indifference manifested by motor boat owners generally in the racing events of past seasons has been evident this year. The latest instance of this was the small number of contestants starting in the motor boat events which form part of the program for the Atlantic Yacht Club's September Race Week.

For the race for cruisers around the Fire Island course for the Thompson Cups the first prize for the 30 to 40-foot class was a cup valued at $150, and the second prize a cup valued at $100. For the cruisers of 50 feet in length and over, the first prize was a cup valued at $175, and the second prize a cup valued at $125. For the racing type of craft there was a first prize of $100, and a second prize of $85 in value; the collection of trophies aggregating considerably over $700 in value, which certainly seemed worthy of a long entry list.

As a matter of fact, however, there were but five starters in the two cruising classes. W. B. Duncan's Barbara won the first, going around the course in 11 hours 3 minutes and 30 seconds, H. E. Boucher's Chin Chin, whose time was 11.23, second. Eronel was third, her time being 12 hours 5 minutes 9 seconds. In the 50-foot class there were two contestants: J. H. Hoadley's Alabama, 6 hours 49 minutes 30 seconds, being the winner, and the J. Steiner's Wanderlust, which finished in 8 hours 4 minutes 22 seconds. In the racing classes there were eight entries, six of

which started. No boats finished in Class O over the 34½-mile course. In the P. & Q. Class, which was combined, H. N. Baruch's Skedaddle won in 2 hours 4 minutes 11 seconds over a 23-mile course. And in the R. & S Class, A. J. Bushman's Marion won in 1 hour 47 minutes 13 seconds. Skedaddle had trouble with her engine, which accounted for the time she made, but stuck it out to the finish and won.

A total of but 13 entries for these events clearly indicates a decided lack of interest among those who might naturally be expected to warmly welcome such an opportunity to engage in them. During Marblehead Race Week, in which all Massachusetts Bay was interested, there were 483 sailing yachts entered and not a single motor boat event. Because, as representative club men informed a member of YACHTING'S staff, it had been found impossible to get the New England power boat owners to support such races if scheduled.

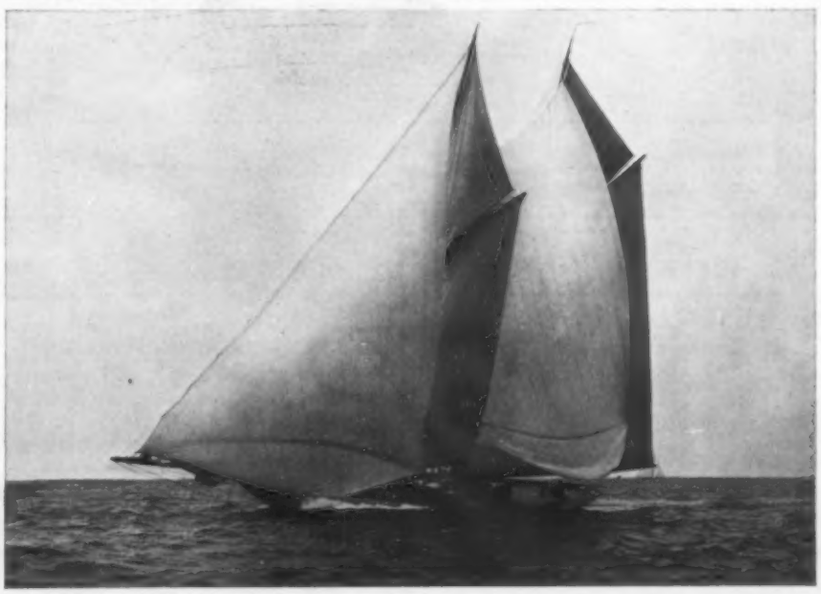
All in all, there is a decided lack of the get-together spirit among the owners of both the racing and cruising craft, and it is really about time for them to buck up if the sport is to amount to anything.

Racing is an important end of motor boating, and it seems too bad that, with the excellent material in the way of both owner and craft which the motor boat fraternity represents, there should not be a great deal more enthusiasm in speed contests. Cannot we put our heads together and plan for a season of harmony and well-contested races for the next year?

Dory racing has come to be a popular sport on New York Bay, and the success of classes made up of craft of this type in the races of the past two seasons insures a larger representation next year. And yet, at the outset things promised ill for dories in the waters south of Manhattan Island. A class had been formed, and it was regarded as all covered by restrictions. But a designer in search of success for boats from his boards devised the idea of having the streaks which characterized these clinker-built boats thinner than the planks which covered the ribs of the other dories. The rule had been avoided, but there were complaints that in thus evading restrictions the spirit of the rules had been violated. There was a great fuss about it, and for a time the disruption of the class was threatened, but matters were finally adjusted. How many rows there have been over just such matters as these, and will continue to be, until rules that can scan the possibilities of clever minds are devised!

The presence of "Cleve" Dodge's fine ninety-foot schooner Corona in the Class B schooner division in the New York Yacht Club cruise was welcome to all who in past years had admired her for the game, if losing, races she had sailed against her swifter rival, Elmina. When Ernst Lorillard, of the regatta committee of the New York Yacht Club, was tearing up the earth and scanning the heavens in the work of securing entries of a sufficient number of racing boats to make a respectacle showing in the annual cruise, he stumbled across Corona. Cleveland Dodge was abroad; but this made no difference to that sportsmanlike yachtsman. He cabled Percy Pyne, telling him to sail her in the cruise, which Mr. Pyne did, defraying, of course, the running expenses. While she won no races, she made things interesting for all the schooners in the ninety-foot division, and contributed much to the success of the cruise.

This would indicate that loyalty of sailing men to their club, of which it is the fashion to express doubt, is a tangible element, as many incidents in connection with the port-to-port jaunt of 1908, aside from that of Corona, have gone to prove. There was Seneca, too, a schooner of well-fitting sails and an auxiliary engine, struggling gamely day after day against yachts whose calibre gave her no chance of victory. Wilson Marshall's trans-Atlantic champion Atlantic was in the fleet, by the way, with a crowd of Larchmonters aboard, and at all ports she was a center of attraction. With her three tall masts and her powerful, but graceful, black hull, she looked the great yacht she really was.



GEORGE MERCER, JR.'S, AUXILIARY SCHOONER, SENECA, WHICH WAS A PICTURESQUE FIGURE IN THE NEW YORK YACHT CLUB CRUISE. SHE ALSO RACED FOR THE GOOD OF THE SPORT.

At Newport the shellbacks of the club were having great fun at the expense of Commodore Elbridge T. Gerry's steam yacht Electra. Naval officers stationed at Newport had told them that so far as they had been able to observe the extent of Electra's cruising ground was measured by the play of the cables which lashed her to the wharf just above the Commercial pier. Whether that be true or not, the fact remains that for the twenty-sixth year Commodore Gerry put out to the Brenton Reef lightship with a distinguished party of invited guests to follow the yachts in their special race for the cups formerly offered by Robert Goelet, and now offered by Capt. John Jacob Astor. Men who never see a yacht at any other time rely season after season upon Commodore Gerry's polite invitations, and without the Commodore and his great white yacht it is difficult to see how this historic event could be sailed.

Sir Thomas Lipton has certainly such an audience as no other yachtsman ever had in this or past ages. He has but to suggest to a friend or reporter in the most offhand way that he is "ready to challenge, provided," etc., etc., and his words are hurled broadcast throughout the United States, England and all her colonies. His last state of readiness is analogous to the condition of mind which characterized his preceding announcement of readiness to challenge; and the one before that, and the one before that, viz., "if the New York Yacht Club assures me that they will accept a challenge for ninety-footers built under the rule of measurement which now obtains in the New York Yacht Club." Now, as the New York Yacht Club has expressed the conditions under which a challenge from Sir Thomas will be accepted, why, in the name of reason, this excitement every time the "genial baronet" repeats himself?

A Successful Type of Small Craft

HOW ROWBOATS MAY BE TRANSFORMED INTO MINIATURE POWER BOATS WHICH SAVE THE FISHERMAN TIME AND LABOR—LITTLE LAUNCHES FOR INLAND LAKES THAT OPERATE ON SMALL FUEL CONSUMPTION AND MAY BE EASILY PORTAGED

By K. E. TREADWELL

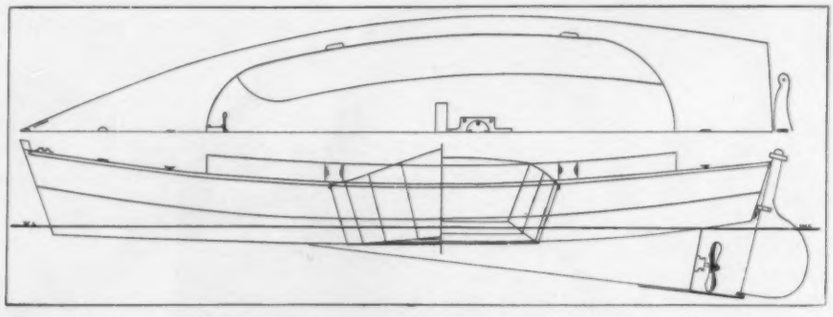
Illustrations by Courtesy of Lackawanna Manufacturing Company, Cape Cod Power Dory Company and F. W. Bailey

WHILE but little has been said about them, and they have not, to any great extent, been featured in the yachtsmen's publications, there are numerous small craft of 16 feet and less—of almost row-boat type—which during the last few years have been equipped with gasolene motors.

I am not alluding to yacht tenders, which form a special class by themselves, but to the ordinary row boat of moderate dimensions, in which the installation of a marine motor of from 1 to 2½ or 3-horsepower has released the skipper from toil at the oars, and allows him to make a speed of from 7 to 11 miles per hour.

Such a craft at the fishing resorts is particularly useful.

In many places, along the salt-water inlets and bays, the best fishing grounds are quite distant from the most convenient place from which the expedition must start, and the long pull, either with or against the tide, is not always the pleasantest start or finish of a fishing trip.



A 16-FOOT, 4-FOOT 6-INCH BEAM POWER SKIFF WHOSE SEATING ARRANGEMENT IS ALONG THE CONVENTIONAL LAUNCH LINES. WITH A 1½-HP. ENGINE THIS SKIFF SHOULD MAKE A TRIFLE LESS THAN 6 MILES PER HOUR AND COST ABOUT $170.

It is to-day possible to install in a 15-foot flat-bottom skiff a 1½ to 2½-horsepower engine, which will give the boat—provided her lines are right—a speed of seven miles per hour, nearly twice the rate at which a man can row.

With the motor set in the stern or in center of boat, and with a small gasolene tank under the stern seat, it is possible to have plenty of room for a live-bait box under what would ordinarily be the after rowing seat, and also accommodate comfortably three or four fishermen.

In a flat-bottom craft like this, absolutely the simplest equipment possible is the best.

There is no room for the gear of the reversible propeller, so that whatever reversing is required must of necessity be done with the engine.

As a matter of fact, however, so little maneuvering will be required in the way of slowing down and backing that the inconvenience of reversing will not be sufficient to counteract the convenience of this extremely simple lay-out.

It is surprising to those who have not closely followed the progress made in small, low-power engine design, in what light weights a power equipment of this nature may be obtained. From 75 to 85 pounds may be made to cover the weight of the engine, propeller, shaft, muffling and fuel equipment.

This means that with about half the weight of an oarsman the fisherman may provide himself with something that will do twice the aforesaid toiler's work.

In the matter of pleasure craft, the row boat, of a type generally known as the St. Lawrence skiff, lends itself readily by reason of its beauty and speediness to the engine installation idea.

These craft possess a very graceful appearance and lines and average from 15 to 20 feet in length, and from 42 to 48 inches in beam. They have just sufficient sheer to render them seaworthy in all but extremely rough weather, and this sheer adds greatly to their appearance; in fact, it adds so much that many amateurs, not realizing their staunchness, have believed that it was given simply for æsthetic purposes.

Such boats are usually built with decks of from 30 to 36 inches in length, and are identically the same shape at both bow and stern. This feature precludes the possibility of installing the engine near the stern, and renders it necessary to place it as near the center of the craft as possible or toward the bow, as she has no bearing on the water aft to support this weight.

An 18-foot St. Lawrence skiff makes an ideal launch for use on small lakes and moderate-sized rivers, and it can give an extremely good account of itself, even when used in rough water.

RUTH, A 16-FOOT BY 4 FEET BEAM LAUNCH, IN WHICH IS INSTALLED A 2½-HP. ENGINE, TURNING A 12-INCH WHEEL AT 650 REVOLUTIONS PER MINUTE AND GIVING HER A SPEED OF 9 MILES PER HOUR. SHE WAS ORIGINALLY BUILT FOR A SAILING CRUISER, AND HER RATHER FULL LINES AFT ALLOW THE INSTALLATION OF ENGINE FAR TO THE REAR IN COCKPIT.

A somewhat powerful equipment would be one of the small 2-cylinder 5-horsepower motors, which would give a speed of at least 10, possibly 12 or more, miles per hour.

If a lower power be desired and a speed of 8 or 9 miles be satisfactory, a single-cylinder 2½ to 3-horsepower motor would take up but very little room, and consume but very little fuel.

These boats have always been known as particularly fast and easy rowing craft, and when used under sail, either cat or cat yawl rigged, they have proved speedy and possessed of good windward qualities.

The main objection to them for sailing purposes has been that.

in common with all long, narrow boats, they were slow in coming about, and frequently had to be helped over by holding the boom out to windward.

This very quality, however, of being slow in coming about makes them easy to steer under power, for, given their course, they are more apt to hold it, and will hold it with less attention from the steersman, than a broad, flat-bottomed shoal-draft model.

In an 18-foot St. Lawrence skiff it would be possible to install a reversing propeller which could be operated from either end. So equipped, it is possible to keep one of these light, fast craft under easy control, particularly as a style of propeller is now made which, by keeping a uniform load on the engine, renders it unnecessary to regulate the throttle when slowing down or speeding up, or even when the propeller blades are still at neutral—the critical time at which the blades of a reversing propeller usually allows the engine to race unless throttled down.

Another objection to a craft of this size and style when fitted with power has been that the muffler and its connections have occupied so much room. But if the engine is located at the center of the boat, the exhaust pipe may be carried along the side and end in the muffler under the after deck, and the pipe from the muffler to the outer air may be put through the side of the boat opposite that to which the exhaust pipe has followed.

By this means it is possible to carry the pipe along without any joints or angles, the very slight curve which the pipe gradually assumes having but little retarding effect on the escaping gas.

Another arrangement would be the installation of the engine at the bow as far forward as possible, with the fuel tank under the forward deck. In such a case the same scheme as shown in some of the motor canoes of recent design—that of placing the fly wheel between the engine and the propeller shaft—would be best. With the engine in the bow it would be possible to trim the boat properly, no matter how many passengers she contained. The engine would be so small that the heat from it would not be noticed, and if muffled carefully and thoroughly there would be but little annoyance from noise and vibration.

If a reversing engine is to be used, the central position of the engine would be preferable, as it would allow the engineer keeping his weight near the center of the craft and being where at the same time he would be in ready reach of the motor and able to instantly reverse it.

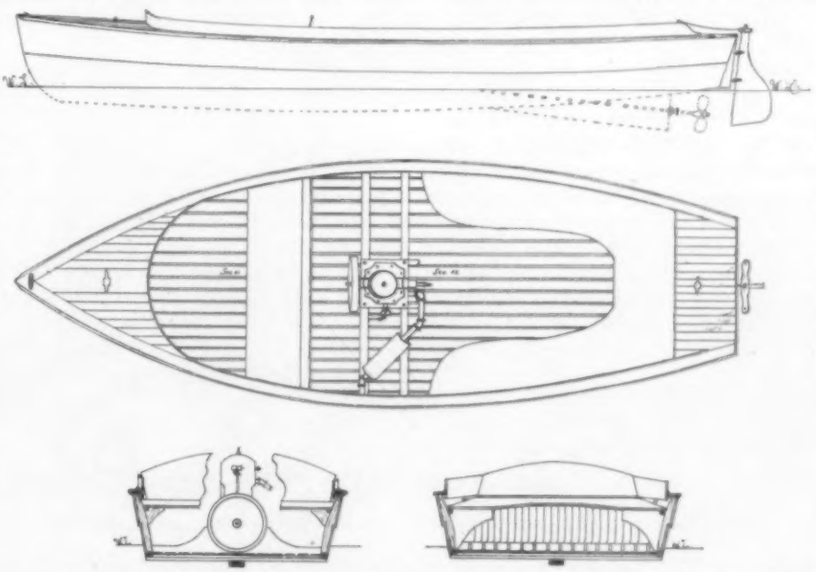
If, however, instead of using a solid propeller and reversing it by the engine, a reversible propeller is used, the best plan would be to install the engine at the bow and have the reversing lever at the stern.

This arrangement would allow of the engineer when alone setting his propeller blades at neutral and then going forward and starting up the motor, and after starting going back into the stern, whence he could control both rudder and reversing propeller, and at the same time balancing by his weight the machinery and gasolene tank situated at the forward end of the craft.

When two or more were aboard, the steersman in the bow would also act as engineer and whoever sat at the stern could handle the reversing gear when necessary.

Furthermore, there would be nothing but the propeller shaft and the exhaust pipe occupying any space aft of the engine. The pipe could be run well over to one side and sheathed with asbestos and water cooled, so that any chance of its burning anyone or anything would be reduced to the minimum.

The main thing to be guarded against on a small craft of either flat or round-bottom construction when fitting with motor is extreme draft. For every extra inch which a craft draws she is excluded from just so much more cruising ground. The extra inch or two on her draft which a little care would have prevented often means that she must go the longest way around, and that passageways between lakes and inlets and outlets to and from them may not be navigated at certain stages of the water without resorting to the expedient of pushing or towing.



PLANS OF 15-FOOT SKIFF, WITH 5-FOOT BEAM, 11 INCHES DRAFT, AT SKEG. EQUIPPED WITH 2½-HP. ENGINE AND A TWO-BLADE WHEEL OF 10 INCHES DIAMETER AND 30-INCH PITCH, WHICH WOULD GIVE HER A SPEED OF 6 MILES. SUCH A BOAT WOULD COST ABOUT $170.

A propeller of small dimensions and large blade area can be made to give results almost as satisfactory for this style of craft as a wheel of larger dimensions and less blade area.

You will not obtain quite the speed with the three-blade which the two would give, but you will obtain results good enough for all practical purposes, and, furthermore, you will secure a minimum of vibration sometimes very acceptable in a small light craft.

By placing the engine forward the angle of the propeller shaft will be so slight that the draft will be reduced to the working minimum. A skeg guard should by all means be used, for these little craft will go into shoal water so often that the skipper will finally, as a matter of course, take chances, and unless he has a skeg his propeller gear is apt to be damaged. Any amount of enjoyment may be had from a possession of one of these little craft either of the flat-bottom or St. Lawrence skiff type, particularly in the smaller lakes. There is a great deal of satisfaction to be experienced from the mere knowledge that when the fish stop biting it will not be a case of a long, long pull, oftentimes in the face of an adverse wind.

One's satisfaction is by no means diminished by the fact that the boat is so small and so light that you can get overboard if necessary and pull her over bars or load her aboard a wagon and portage her to unfrequented bits of water where the fishing may be particularly good for the very reason that facilities for getting at the fish are limited or totally absent.

Then, too, with the 1½ to 2½ horsepower, the fuel consumption is so small that a tank of very little capacity and weight will provide for a cruising area of goodly radius; and, moreover, when the season is ended, the boat may be stored in the boat house.

NEW YORK YACHT CLUB FLEET AT ANCHOR OFF MARBLEHEAD. THE CORINTHIAN YACHT CLUB IS SEEN AT THE RIGHT.

The New York Yacht Club Cruise

WHILE THE SQUADRON WHICH JOURNEYED TO THE EASTWARD WAS NOT SO LARGE AS IN PREVIOUS YEARS, YET, CONSIDERING UNTOWARD CONDITIONS WHICH HAVE OBTAINED THIS SEASON, THE EVENT MAY BE SAID TO HAVE BEEN ENTIRELY SUCCESSFUL—ESPECIALLY WAS THIS TRUE AS REGARDS RACING CRAFT—STEAM YACHTS CONSTITUTED THE PRINCIPAL DEFICIENCY

By WARREN HAPGOOD

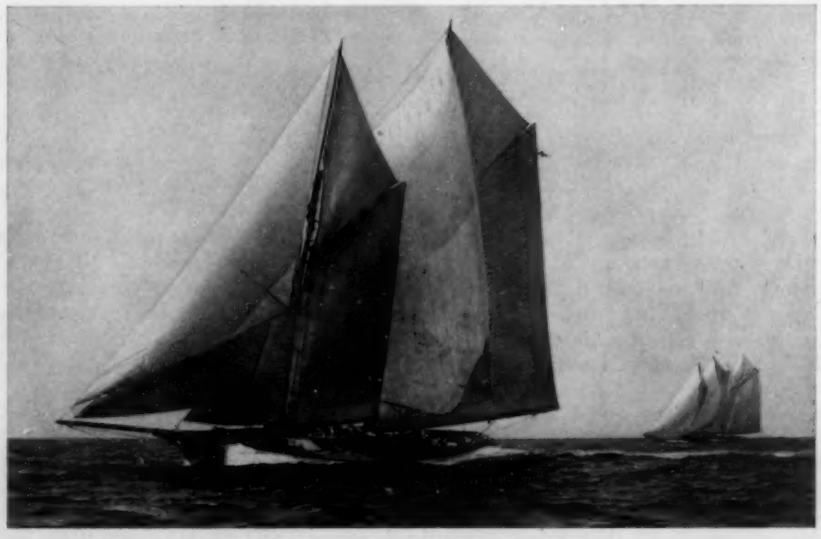
Photographs by James Burton

ONE great feature of the New York Yacht Club cruise, which has been somewhat neglected, is the spirit shown by the regatta committee and racing members of that organization in working together earnestly and enthusiastically in the effort to pull the annual port-to-port jaunt of 1908 above that mediocrity which threatened. And in this they succeeded beyond all expectations. When the tug Nonpareil sounded the starting signal for the first day's run from New London to Newport, the various racing divisions suffered nothing by comparison with past seasons.

On the decks, at the helms of many of the yachts, were men who would not have been there, who would not have had their boats in commission, could their own interests have been consulted, but who were willing to sacrifice those interests for the good of the sport. The result was what might have been expected, a booming, thrilling series of port-to-port runs and special regattas, well sailed, fairly contested and handled by the regatta committee in prompt, incisive, workmanlike manner.

As to the steam yacht contingent the less said the better. Steam yacht owners have been accumulating in the New York Yacht Club at a greater rate than the wind-jamming element of late, and in ordinary times one following the cruise would expect to see such a representation of costly floating palaces as would fill the eye and daze the imagination. But no such argosy materialized this year. The financial standing of such as these is largely dependent upon Wall Street conditions, which, as almost everyone knows, have not been any too favorable this season. Therefore, as steam yachting is not calculated to inspire the devotion to a cause which the sailing man, in the very nature of the sport, must feel, there was little incentive save club loyalty to bring them out. Some were thus swayed and followed the racing craft down the coast to Marblehead, inwardly groaning at the smoke of every ton of coal which belched out of the funnel—money going into smoke that might have been used in covering shorts or paying stenographers' salaries or telephone bills.

All in all there was no fault to find, and the elements, as though to requite the amateur sailormen for their sacrifice, produced on almost every day the bluest of skies, the most invigorating air, and winds that sent the racers jumping over the billows at 10 knots an hour or better. And ashore at all ports from New London to Marblehead there was all good fellowship, that mental effervescence—in brief, that jovial uplift—which those who year by year are privileged to follow the flag find almost as beneficial as the salt air and the sunlight.

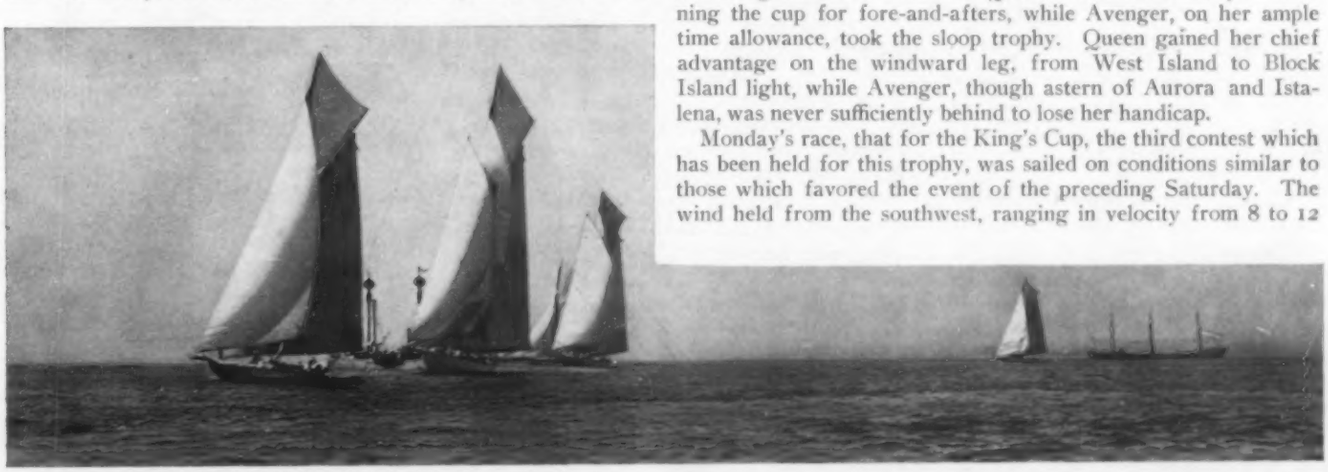


JAMES B. FORD'S SCHOONER KATRINA, BUILT IN 1888. SHE WON THE HAUOLI CUP FOR SCHOONERS IN THE RACE FROM VINEYARD HAVEN TO PROVINCETOWN.

Vigilant, Sybarita, Queen, Elmina, Corona, Katrina, Aurora, Istalena, Wetamoe, Avenger, Seneca, Mimosa, Leda; who could have asked more in the way of racing than was provided by these yachts, to say nothing of the one-design thirties and staunch cruising craft who always bear watching by the fleetest of the racing

windjammers when negotiating slam-bang port-to-port races.

There was Katrina, grand schooner she, a Cary Smith designed 70-footer, built at City Island way back in 1888. James B. Ford owns her, and she came romping up to the line on the first day with all the sprightliness of youth, and with all the good looks which Mr. Smith gives to craft which come from his boards. She, when the cruise ended, had the proud honor of having defeated the great Queen, twice winner of the Astor Cup for schooners and 1907 winner of the King's Cup. It was in the run from Vineyard Haven to Provincetown in a rattling northwester, and although Queen sped along like a frightened deer, she simply could not foot with sufficient speed to fly outside of the time allowance which was due the smaller schooner. So Katrina finished at the Haven proud in the knowledge that she had the Hauoli Cup for schooners safely stowed in her locker. It was the same way with William S. Eaton's 65-foot schooner Taormina in the run from Provincetown to Marblehead across Nantucket Shoals. She took the Navy Challenge Cup from Queen for the reason that the Maxwell schooner could not foot with sufficient speed to get outside of the allowance she was obliged to give the smaller boat. She probably would have had to go like a runaway locomotive to have done this, since in that run across the Shoals she logged the remarkable speed of 12.3 knots an hour for the entire journey of nearly 40 miles.



START OF THE KING'S CUP RACE OFF NEWPORT. ISTALENA LEADING THE WAY OVER THE LINE. AVENGER, WINNER OF THE CONTEST, IS LAGGING ASTERN.

The boat of the cruise was unquestionably Robert Emmons' 57-footer Avenger. This wonderful sloop won about everything that she could have won. She took the Vice-Commodore's Cup for sloops in the run from Newport to Vineyard Haven; she took the sloop cup offered by F. M. Smith of Hauoli in the thresh from Vineyard Haven to Provincetown, and the Navy Challenge Cup for sloops in the run from Cape Cod to Marblehead. In addition to this she captured three class prizes, and best of all she won handily the Astor Cup for sloops in the special race off Renton Reef lightship, as well as the cup offered by Edward of England. Had she not failed to win the Rear-Commodore's Cup for sloops, and the class prize, both of which went to Aurora in the run from New London to Newport, she would have had the unprecedented record of winning every prize that it was possible to win. As it was, few yachts, if any, have ever equaled this wonderful record. It must be remembered, though, that as a result of her rating at the bottom of Class K, she received from the two other sloops in her class, Istalena and Aurora, an allowance of about 19 minutes.

The day of rendezvous at New London on August 5 was, so far as the elements were concerned, decidedly unpropitious. There was wind and there was rain, and when Commodore Vanderbilt's flagship North Star slid into the mouth of the Thames, just before sunset, it was a most bedraggled picture which the fleet presented. C. K. G. Billings' great white steam yacht Vanadis lay off the Pequot, with torrents of water pouring down her awnings, and the rest of the yachts—about 200 of them—stretched up to Fort Trumbull, as wet above the waterline as below.

The call of the shore was rendered less potent by the fact that the good old Pequot House lay a mass of charred ruins, as a result of the fire in the early spring, but the Griswold, over on the Groton side, beckoned genially, and while the wind blew and the floods descended, merry parties of stout-hearted amateur tars sat about tables laughing and joking and keeping the waiters busy.

Morning dawned as fair as ever dawned August day, and with a bit of a wind the fleet put out of the harbor with all the picturesque circumstance commonly associated with New York Yacht Club squadron exits from this port. Outside of the Race the wind fell flat, and the entry into Newport Harbor was by no means so brilliant as the departure from the port left astern. Queen won the class prize and schooner prize, and Aurora took honors among the sloops. The next day, Saturday, the race for the Astor Cups for sloops and schooners was sailed. There was a rattling southwest wind and Queen had little difficulty in winning the cup for fore-and-afters, while Avenger, on her ample time allowance, took the sloop trophy. Queen gained her chief advantage on the windward leg, from West Island to Block Island light, while Avenger, though astern of Aurora and Istalena, was never sufficiently behind to lose her handicap.

Monday's race, that for the King's Cup, the third contest which has been held for this trophy, was sailed on conditions similar to those which favored the event of the preceding Saturday. The wind held from the southwest, ranging in velocity from 8 to 12 knots, and the sea was sufficiently smooth to admit of fast footing. Queen finished first and then lay, hung up in the wind, waiting to see whether the other yachts would complete the 38-mile triangle in time to win on allowance. Elmina, F. F. Brewster's schooner, was next in, and then came Istalena, Aurora and, last of all, Avenger. This sloop being well inside the allowance which not only the 57-foot sloops but the schooners were obliged to give her, she won the cup handily. Her victory was popular, inasmuch as she was owned by a Bostonian, a fact regarded as beneficial to the sport, opening as it may well do a new era in the old-time rivalry between the yachts of New York and New England.

On Tuesday, in a cracking breeze, the racers and the attending squadron left Newport for Vineyard Haven, the prizes being the Vice-Commodore's Cups for sloops and schooners. Avenger won the sloop cup and Queen the schooner cup. In the race from the Vineyard to Provincetown the Hauoli sloop cup went to Avenger, and the schooner cup to Katrina. Taormina won the Navy Challenge Schooner Cup in the run from Cape Cod to Marblehead, and Avenger was the recipient of the sloop cup. In all these races Avenger won prizes for her class as well as for sloops.

Of the scenes at Marblehead, the article on race week at that port, which appears on another page, gives ample description.

Under-Water Exhaust

VARIOUS TYPES, AND METHODS BY WHICH THEY MAY BE INSTALLED IN CRAFT ALREADY BUILT—IN MANY BOATS THE ESCAPE OF GASES IS ATTENDED BY NERVE-RENDING NOISES—A SUB-AQUEOUS VENT MAY BE PROVIDED EASILY AND CHEAPLY—DIRECTIONS AS TO HOW THIS MAY BE DONE

By E. T. KEYSER

Diagrams by Courtesy Motor & Manufacturing Company, Glens Falls Manufacturing Company, Charles Kaufmann, American Submerged Exhaust Company, and Yale Exhaust Company

IN the March issue of YACHTING I gave a brief description of the respective methods of the above versus under-water exhaust, and illustrated two types of the under-water method as utilized by boat builders.

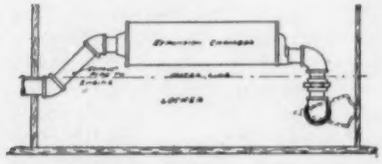


Figure 1.—Diagram of a method of exhausting through side of boat. The exhaust passes into expansion chamber through center of one end and out through pipe at lowest point of opposite end, thus rendering expansion chamber, which is above waterline, self-draining.

These requests were certainly right in the line of progress in the equipment of power boats, for the general use of the under-water exhaust, or of some substitute for it which will materially lessen the noise of the discharge of the used gases, must surely come within the next few seasons.

With the increasing number of power boats the noise of exhausts along the water-front, particularly in suburban residential districts, is becoming more and more of a nuisance; not necessarily to the occupants of the craft themselves, but to those in the neighborhood who get the full benefit of the rather inharmonious combination of noises which a few ill-regulated above-water exhausts can create.

Within the last year the progress in the development of under-water systems has been so rapid and so marked that there is today no reason why the owners of even very small craft cannot very easily and inexpensively fit their boats with this type.

In fact many of the systems are so simple and so easily installed, that a boat owner with only a fair amount of skill as an amateur mechanic may procure the necessary materials and install the equipment himself.

The simplest form of submerged exhaust would be a pipe leading from the exhaust port directly through the stern of the boat aft and above the propeller wheel.

In such cases two precautions are necessary. The first is, that the exhaust pipe should be considerably larger in diameter than that of the exhaust port of the engine; and second, that the outlet be far enough removed from the propeller, so as not to create any air space above or behind the blades.

Moreover, the out-board end of the exhaust pipe should not be more than 3 or 4 inches beneath the surface of the water when the boat is under way.

For instance, if the exhaust port of the engine is 1¼ inches in diameter, a 2-inch exhaust pipe coupled up to it will allow expansion of the gas, thereby reducing the shock which would be otherwise caused if piped directly out-board through a small bore tube.

By running a portion of the circulating water out through the exhaust pipe, the exhaust gases are condensed and the pipe thus kept cool.

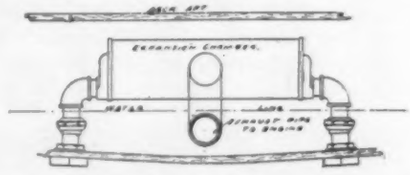


Figure 2.—The system illustrated in diagram No. 2, as adopted for exhausting through bottom of torpedo stern launch, on each side of propeller wheel. It will be noted that the self-draining arrangement of expansion chamber is retained.

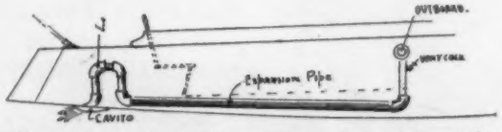


Figure 3.—Arrangement for exhausting underwater through bottom of stern of a torpedo stern launch. Instead of expansion chamber, piping of large diameter is used. Cock allows exhausting outboard when starting. Loop above waterline prevents flooding of below waterline exhaust pipe. Good layout for 4-cycle engine.

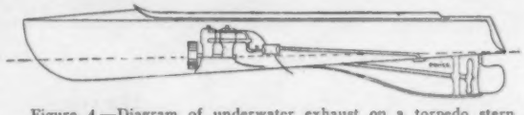


Figure 4.—Diagram of underwater exhaust on a torpedo stern launch with two-cylinder engine. Expansion chamber and most of exhaust piping is above waterline, and therefore danger of flooding is reduced to minimum. A vent cock between engine and on expansion chamber allows ease in starting engine and prevents flooding of engine. Drain pipe should lead from *bottom* of expansion chamber so that all water drains out.

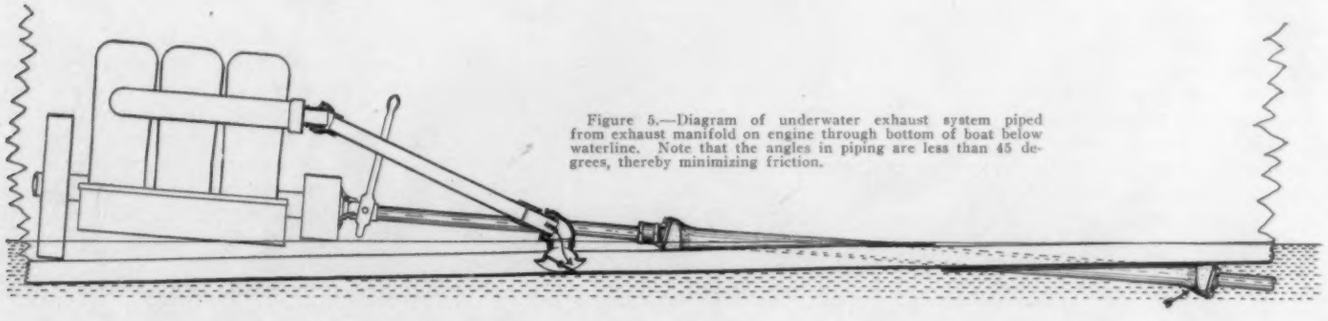


Figure 5.—Diagram of underwater exhaust system piped from exhaust manifold on engine through bottom of boat below waterline. Note that the angles in piping are less than 45 degrees, thereby minimizing friction.

Some of the smaller size of power dories utilize this very simple method and the gas itself is expelled into the broken-up water in the wake of the propeller. The motion of the boat itself creates a suction which helps to draw the spent gas out of the pipe, thus preventing back pressure.

It is not always possible, however, because of arrangement of seating accommodations, to utilize this simple plan, for the pipe running through the after end of the cockpit must slope downward, so that there will be no danger of water backing up into the cylinder.

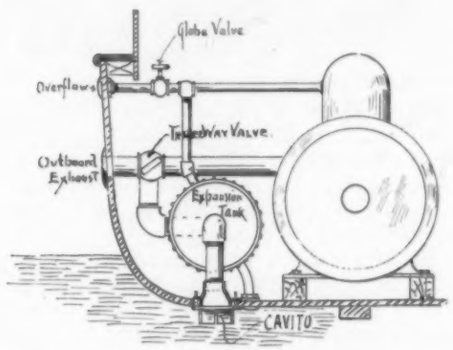


Figure 6.—In this diagram expansion tank is placed beside engine, overflow runs into top of and through bottom of tank through the bottom of the boat. A Globe valve is between outboard overflow and pipe leading to expansion tank, so that all of water may be forced into expansion tank. Three-way valve in exhaust line enables the operator to turn the exhaust, outboard or underwater at will. As Globe valve on overflow line is rarely closed entirely, it is impossible for a partial vacuum to form in the expansion tank.

Pioneers in the installation of under-water exhaust system early discovered two difficulties in their way. First, the spent gases expelled directly against a body of water, met a resistance only a little less than that of a solid substance, which caused shock and vibration that increased with the depth of the outlet below the waterline; second, that as the exhaust pipe cooled, and the expanded gas condensed, a partial vacuum was formed in the exhaust pipe, into which the water was sucked up, sometimes flooding the engine.

The remedy for the first obstacle was found, either by putting the exhaust pipe directly out of the stern so that the direction of the boat forward would create suction, or by a peculiar formation of an outboard cap for the exhaust pipe, which would create suction from the exhaust pipe itself on the same principle as the atomizer does for a cologne bottle, with the difference that in the cologne atomizer the passage of air over a capillary tube draws out the liquid, and in the exhaust the passage of water across the end of the exhaust pipe created a suction for the gas.

The second difficulty, the tendency of the cooling pipe to flood the engine, has been surmounted by means of expansion tanks, into which the gas first passes before its expulsion. These tanks are either of sufficient diameter to take up the water in the pipe or are supplied with a vent which does away with the vacuum suction entirely. In every case, however, the expansion tank is situated above the waterline, so that gravity alone cannot fill it with water.

Under-water exhaust systems may be divided into two classes—those which pass the gases out through the side of the craft directly opposite or a trifle astern of the engine, and those which discharge through the stern.

Illustration No. 1 shows how the exhaust pipe from an engine is connected to an expansion chamber concealed in the locker of an open launch, and the connection between the expansion chamber and the outboat exhaust fitting on the side of the boat about 3 inches below the waterline.

It will be noted that the angles between the engine and expansion chamber are 45 degrees, and that the expansion chamber itself is nearly as much above the waterline as the outboard discharge pipe is below it

Figure 2 shows a double-ended exhaust system for use with a flat stern, torpedo model craft.

In this case the discharge piping from the engine empties into the center of the expansion chamber, while from each end of the latter, discharge piping connects with two outboard fittings.

Illustration No 3 gives a very good idea of how, by means of a discharge pipe of large diameter—which practically serves as an expansion chamber—it is possible to discharge the exhaust either at the side of the boat a few feet aft of the engine or at the stern.

It is a very good method for discharging from the stern of a torpedo style craft, where no expansion chamber and but one outboard exhaust fitting is used.

The outboard exhaust with the three-way valve is installed as in figure No. 6, but instead of an expansion chamber a length of piping considerably larger than the diameter of the engine exhaust is used. It is brought up in an inverted U almost to the deck, and provides against the engine being flooded by gravity alone, while a vent cock, always open when the boat is at rest, is installed between the engine and the expansion pipe.

Figure 6 shows a particularly good arrangement of an under-water exhaust. The thwartship discharge pipe runs directly from the exhaust port of the engine through the side of the boat well above the waterline. Midway in this discharge pipe is a connection with a three-way valve leading into an expansion tank. From the bottom of the expansion tank a short length of piping leads through the bottom or side of the boat.

In starting the engine the three-way valve is turned so that the motor exhausts directly into the open air with no chance of back pressure, allowing the operator to ascertain by the sound of his exhaust whether the engine is firing properly. Immediately upon getting under way, the valve is swung over so that by a 45-degree angle the discharge is thrown down through the vertical pipe into the expansion tank and from thence outboard. The circulating water may be passed directly into the tank and so out, or a portion of it may be tapped from the overflow, as shown in the illustration, so as to serve, not only to cool and condense the exhaust gases, but to act as a vent pipe to prevent the formation of a vacuum when the engine is stopped. In this system it will be noticed that the expansion tank is well above the waterline.

By means of one of these systems as indicated, any type of craft can be fitted up by her owner with an under-water exhaust apparatus.

In purchasing material it is well to figure on an expansion chamber of about seven times the capacity of a single-cylinder engine

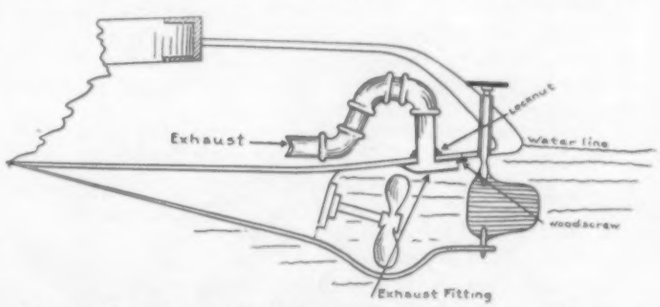


Figure 7.—Detail of a method of raising a section of exhaust pipe above waterline, so that the cylinder will not be flooded when engine stops and the piping cools.

and of any one cylinder of a multi-cylinder motor. This gives the gas an opportunity to expand and reduces the chance of back pressage.

If the exhaust port is 1¼ inches in diameter, couple the engine to a 1½-inch or 2-inch standard pipe, connecting with the expansion chamber and pass all or a portion of the circulating water through the expansion chamber.

By means of a pipe connection with the circulating water discharge and a valve, it is possible to regulate the amount of water

supplied to the expansion chamber at will. When, instead of an expansion chamber, an exhaust pipe of large diameter is used, the length and diameter of this piping give it as much or a trifle more capacity than the expansion chamber of the proper dimensions would have.

The chances of vibration are greatly minimized by making the connections of rubber fire hose, or of flexible galvanized steel or copper hose, which is almost as flexible as rubber and possesses superior advantages in the way of greater durability.

Angles of over 45 degrees should be avoided wherever possible. They do much more to retard the flow of the gas than one would suppose.

Figure 8.—Rear and side view of an underwater fitting, in shape of double funnel, allowing flow of water in either direction and reducing back pressure when boat is going astern.

The outboard connections are various, and many of them are extremely good. The idea is to cause the flow of water past the opening to create a partial vacuum in the discharge pipe, thereby sucking the gas from the expansion chamber and preventing back pressure. They are usually made V-shape, with the point toward the bow, and with one or more apertures through which the gas is discharged. They vary in size of outlet pipe, running from 1 to 2 inches, but the more practical, all-round size for an engine of 5 hp. with a 1¼-inch exhaust port is 1½ inches.

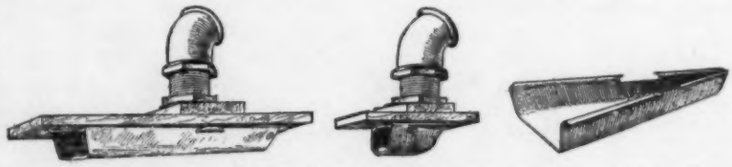


Figure 9.—A type of underwater fitting, in which the outlet proper is surrounded and protected by a triangular casing.

One device provides for backing up by means of a pivoted face-plate against which the gas is discharged, and this face-plate projects sufficiently from the casing to offer resistance to the water when the boat is sent astern. This resistance automatically swings over the pivoted face-plate, so that no matter in which direction the boat is running the gas is always expelled in a contrary direction, *i. e.*, with the current created by the boat. The larger and heavier the craft, the less danger of vibration and the fewer precautions which need be taken against it.

With a small and very lightly built craft there is, of course, more chance of the vibration from the exhaust being felt, but just as in such a craft the engine must be particularly well bedded to prevent the engine vibration becoming unpleasant, so must extra precaution be taken to have the exhaust piping adequate.

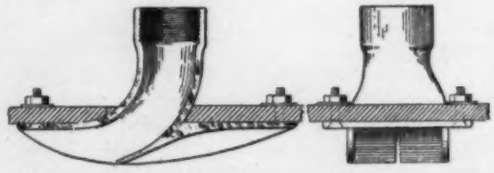


Figure 10.—Side and rear view of underwater fitting used with diagram No. 4. The slot in the lower lip sprays exhaust and acts as relief passage for water when boat backs up.

The larger the expansion chamber in proportion to the cubic contents of the engine cylinder, and the more flexible the piping used for the exhaust connections, the less the chance of vibration. Also the nearer to surfaces the outboard fitting is, the less chance of vibration from this cause.

Some care must necessarily be exercised when exhausting at or near the stern in allowing for what may be the tendency of the boat to squat when going at her best speed.

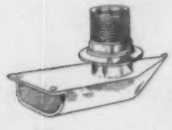


Figure 11. — An underwater fitting as used in diagram No. 7.

As will have been inferred from many of the diagrams accompanying this article, one of the bugbears of the installation of the underwater exhaust system, although it applies with almost equal force to almost any line of piping in marine gas engine works, is the amount of pipe fitting necessary to get around the difficulty of sharp angles. It is impossible to do this by means of elbows, but elbows mean special fitting, and, what is more troublesome and expensive, a considerable amount of thread cutting and increasing the weight to be carried by the boat.

For this reason, wherever possible, it has been for some time past the practice of many to use rubber steam hose, which, in addition to allowing the lines of piping to assume more gradual curves, has, by reason of its flexibility, the property of taking up the shock of the exhausted gas, thereby diminishing vibration.

Even better, however, than rubber hose for the purpose is flexible tubing, either of steel or copper, which may be had in diameters ranging from ¼ inch to 2 inches, the 1½ and 2-inch sizes of which in steel are particularly adapted for exhaust fitting purposes. This tubing is strong and because of its corrugated reinforcement, which allows the use of comparatively gauge material, is more flexible than steam hose of equal diameter, and weighs much less than ordinary piping of similar gauge. It may be bent into any shape, forming a complete circle of very small diameter if necessary, and may be carried from one end of the craft to the other, conforming to the lines of the hull without a single elbow or joint.

In addition, its flexibility will go a long way toward reducing whatever vibration might be experienced, while the fact that it can be laid in the form of an S or U without any sharp angles to cause friction in the discharge of gas, renders it a very desirable material. The weight of piping of this sort runs about as follows: ¾ inch, ¼ of a pound to the foot; piping of a 1-inch diameter would weigh 1 pound per foot; 1¼ inches, 1¼ pounds; 1½ inches, 1¾ pounds; 2 inches, 2¼ pounds.

In using this, it should be remembered that the unions are brazed or sweated to the piping, and the boat owner who desires to install his own exhaust system has only to measure the length of piping necessary and have it cut to that length and connections sweated on. If there is any doubt about the length, a trifle over will be the safe estimate, as it is possible to allow a gentle curve to take up surplus length.

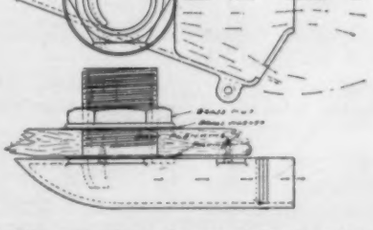


Figure 12.—An underwater fitting in which three holes in the after end allow the passage of the exhaust into the partial vacuum in the water behind the broad rearward part of the wedge.

The diagrams of the different methods of installation give the boat owner a pretty wide choice in the selection of a system particularly adapted to the lines and arrangements of his individual craft, and their beauty lies in the fact that they will in many cases allow the boat owner with a mechanical turn of mind to do the installation work himself, before the boat goes into the water for next season's use.

Figure 12.—An underwater fitting so arranged that whether boat goes forward or backward the swinging plate allows escape of gas in direction opposite to that in which boat is moving.

TRAILING ALONG WITH A GOOD SLANT OF WIND. READING FROM LEFT TO RIGHT, HAWAII, LURLINE, LADY MAUD AND GWENDOLYN II.

The Trans-Pacific Ocean Race

By WARREN D. WOOD

Photographs by the Author

AGAIN the trans-Pacific Ocean yacht race from San Pedro, Cal., to Honolulu, a distance of *2,232* miles, has been brought to a most successful termination, and proves that the Pacific coast is not lacking in good, nervy Corinthians, as three of the four boats were sailed by amateurs and two were manned throughout by amateurs. The race is held biennially under the joint auspices of the Hawaiian Yacht Club of Honolulu, and the South Coast Yacht Club of Los Angeles and San Pedro, and is open to all yachts flying the flag of any recognized yacht club in the world. The yachts must, however, be 40 feet or more on the waterline. There is a time allowance of 30 minutes to a foot, the racing length being the waterline plus one-half the overhang.

CUP PRESENTED BY SOUTH COAST YACHT CLUB AS TROPHY FOR THE TRANS-PACIFIC RACE.

Before speaking of the race itself, it might be well to give a description of the four entries.

Lurline, flying the flag of the South Coast Yacht Club, was owned, commanded and navigated by ex-Commodore H. H. Sinclair. Designed and built *27* years ago by Matthew Turner, of San Francisco, she is just in her prime to-day. She is 86 feet overall, *72* feet on the waterline, 21 feet beam, with a draught of 10 feet. Her record is an enviable one, and this year she repeated her victory of a year ago by winning the handsome trophy offered for the *2,232*-mile race.

Gwendolyn II, of the Elliott Bay Yacht Club, of Seattle, is a little wonder. She was very aptly spoken of as "Little, but, Oh, my!" She is only 49 feet 9 inches over all, 40 feet on the waterline, 13 feet 6 inches beam, with a draught of *7* feet 6 inches. She is a beautiful little yawl, and was designed and built and launched last February by two enthusiastic and enterprising boys of Seattle, Lloyd and Dean Johnson, and would be a credit to any designer and builder. Captained by Lloyd Johnson, and navigated by Capt. Joe Redfern, the boat had an eventful trip down from Seattle, being hove to for 69 hours in a gale off Point Mendocino, but instead of dampening the spirits of her able amateur crew of six, this experience only served to strengthen their devotion to the sport, as was shown by their winning the second prize in the longest race of the year. When she comes to anchor in her home port she will have sailed about 6,500 miles, which is a pretty strenuous maiden trip, especially as it has all been on open seas and in all kinds of weather.

Lady Maud, of the San Diego Yacht Club, is a home-built craft by Wilbur Kyle, who is also captain, with Capt. Harris as his navigator. She is a yawl, with a light, high free-board, which gives her the appearance of being a heavy weather boat, but she upset the calculations of all the rocking-chair fleet by proving herself very good in light airs. Her length over all is 68 feet 3 inches; waterline, 57 feet 11 inches; beam, 14 feet; and draught, 8 feet. Her crew is amateur throughout.

Hawaii, Hawaiian Yacht Club, is a schooner and was designed by Crowninshield especially for this race, and was built by popular subscription, nearly everybody in the Islands contributing something toward her construction; so she was nicknamed "Child of the Southern Seas." Sorenson & Lyle built her last spring of selected native woods. She was commanded by Capt. S. J. Harris and carried a crew of eight natives. While she did not fulfill the expectation of her Hawaiian devotees, they were very game and sportsmanlike losers and they still believe her capable of winning after a few alterations have been made. She is 70 feet 1 inch over all; 54 feet 2 inches on the waterline, 16 feet beam and 10 feet draught.

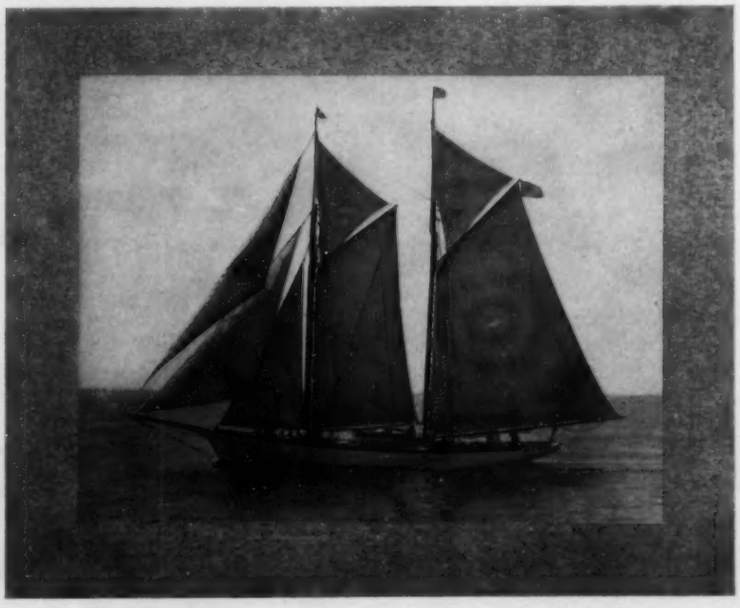
At 12 o'clock noon on the Fourth of July, the cannon in front of the South Coast Yacht Club at San Pedro boomed out is final signal to the four yachts that were jockeying around the starting line and told them that President Roosevelt in the East had started the great trans-Pacific yacht race by pressing an electric button. For an hour previous, the Bay had been alive with all sorts and descriptions of craft, loaded with excursionists and sightseers; everything that could float was out, wishing the four trim racers *bon voyage*. It was a spectacle to be remembered. Here was a trim, little racer, there a pretty cruiser, in the lee of a big excursion steamer, while over there a fisherman was arguing the right-of-way with a launch owner who had nearly run him down, and, through it all, little yacht tenders and small launches were weaving their way back and forth.

Simultaneously, with the final gun, the four racers squared away before a fourteen-knot breeze and ran down to the leeward

mark, a mile and a half away. Lady Maud got across first, with Gwendolyn II a close second, then came Hawaii, while Commodore Sinclair held back, giving the other boats the right-of-way; he having won the cup two years ago was placed somewhat in the light of a defender and in overtaking Hawaii on the run to the leeward mark, he very courteously went through her lee.

At the leeward mark Gwendolyn II had overtaken Lady Maud and rounded first with a margin of 15 seconds; Lurline rounded third, with Hawaii bringing up the rear. The boats were now all close-hauled and on the starboard tack, with Gwendolyn II leading. Lurline, however, gradually crept through the lee of the leaders and took the lead herself. As they neared the beautiful Catalina Island, 27 miles off shore, the wind began to die out, and by nightfall the four boats were rolling around in a dead calm off the east end of Catalina. Lady Maud caught a fluky slant of air off the Island and worked about a mile ahead, and a little to the windward of the rest. Lurline was now second, with Gwendolyn II abeam and to leeward, and Hawaii half a mile astern. All through the night the yachts hardly changed positions, except Hawaii, which drifted about 20 miles off to leeward.

This calm continued until the middle of the afternoon, when a light breeze sprang up. Lurline was soon in the lead again, by sundown the Gwendolyn II and Lady Maud were hull down astern. Lurline did not sight another vessel during the remainder of the trip. Gwendolyn II and Lady Maud, however, kept company for four days, often hailing each other during that time. Hawaii did not fare so well; by getting off her course and going too far to the south, she did not pick up a breeze for 12 hours after the other yachts, thus getting a very bad start, possibly losing the race on this account.



LURLINE, WINNER OF THE TRANS-PACIFIC RACE. SHE MADE THE DISTANCE FROM SAN PEDRO, CAL., TO HONOLULU, 2,232 MILES, IN 13 DAYS, 21 HOURS AND 43½ SECONDS. BUILT AND DESIGNED 27 YEARS AGO, SHE IS BETTER THAN EVER.

The remainder of the race was uneventful, as all the yachts reported light winds and fine weather, with the exception of the last two days of the race, when they encountered heavy squalls and high seas. Lady Maud carried away her topmast, but it was so late in the race that the accident made practically no difference in the result. Lurline lost her spinnaker, after carrying it continuously for eight days.

Gwendolyn II came through without a scratch, thanks to her able crew, although she tried her best to broach to and yawed badly before the big following seas. She steered with a tiller instead of a wheel, which made it much easier to catch her quickly before she could do any damage.

It was the unanimous opinion of yachtsmen that this was the most successful Pacific race ever sailed, and that the Hawaiians were the most royal entertainers that they had ever had the pleasure of meeting. In spite of their disappointment in losing the race, the islanders had a genuine smile and whole-hearted hand-shake for every one. May they win in 1910.

The following is a complete statement of the time of the several yachts:

LURLINE.				
Finish—Honolulu	July 18— 9 hours	31 minutes	43½ seconds.	
Start—San Pedro	July 4—12 hours	00 minutes	00 seconds.	
	13 days 21 hours	31 minutes	43½ seconds.	
GWENDOLYN II.				
Finish—Honolulu	July 19— 9 hours	38 minutes	06 seconds.	
Start—San Pedro	July 4—12 hours	00 minutes	00 seconds.	
Elapsed time	14 days 21 hours	38 minutes	06 seconds.	
Handicap	17 hours	30 minutes	56½ seconds.	
Corrected time	14 days 4 hours	07 minutes	09½ seconds.	
LADY MAUD.				
Finish—Honolulu	July 19—13 hours	07 minutes	07 seconds.	
Start—San Pedro	July 4—12 hours	00 minutes	00 seconds.	
Elapsed time	15 days 1 hour	07 minutes	07 seconds.	
Handicap	8 hours	09 minutes	56½ seconds.	
Corrected time	14 days 15 hours	48 minutes	07½ seconds.	
HAWAII.				
Finish—Honolulu	July 19—15 hours	23 minutes	30 seconds.	
Start—San Pedro	July 4—12 hours	00 minutes	00 seconds.	
Elapsed time	15 days 3 hours	23 minutes	30 seconds.	
Handicap	8 hours	37 minutes	30 seconds.	
Corrected time	14 days 18 hours	46 minutes	00 seconds.	

THE OFFICIAL LOG OF LURLINE.

Entries, Schooner Hawaii, Hawaii Yacht Club; Yawl Gwendolyn II, Elliott Bay Yacht Club; Yawl Lady Maud, San Diego Yacht Club; Schooner Lurline, South Coast Yacht Club.

Yachts crossed starting line in outer harbor, San Pedro, as follows: Gwendolyn II, Lady Maud, Hawaii, Lurline, at noon July 4, 1908.

On rounding stakeboat, 1½ miles from start, we passed Hawaii, going through her lee, and crossing bows to windward. Wind, 15 miles per hour, sea smooth. In half hour from start we were ahead of all contestants.

Wind very light all afternoon, carried balloon jib and No. 2 maintopmast staysail after 3 P. M. At dark we were slightly in lead, Lady Maud second, Gwendolyn II third, Hawaii last. Calm, with light variable airs all night.

July 5, 1908.—At daylight Lady Maud slightly in lead to west of us, Gwendolyn II to eastward, Hawaii not in sight. Calm, varied with light baffling airs all morning. 10.30 A. M.—Yacht Skidbladnir, under power, came alongside, and Mr. Garbutt kindly took letters for us. Said they could see nothing of Hawaii. 3.40 P. M.—Southwest end of San Clemente Island bearing W. ½ N. Ten miles distant took departure, having made but 5 miles since start yesterday. Wind, S. W., moderate.

July 5, 3.40 P. M. to July 6 noon.—Wind, W. to W. N. W., moderate; sea smooth. Carrying balloon jib and No. 2 maintopmast staysail during most of day. Run.—S. W. by S. ½ S., 135 miles; latitude, 30 degrees 46 minutes north; longitude, 119 degrees 29 minutes west.

July 6 noon to July 7 noon.—Winds light and puffy, sky cloudy, same sail as yesterday. Run.—S. W. ¼ W., 143 miles; latitude, 29 degrees 12 minutes north; longitude, 121 degrees 27 minutes west.

July 7 noon to July 8 noon.—Wind, W. N. W., moderate to breeze; sky cloudy. 9 P. M., carried away balloon jib, set No. 2

LADY MAUD, A SAN DIEGO CRAFT. HER DIMENSIONS ARE 57 FEET WATER LINE, 14 FEET BEAM AND 8 FEET DRAFT. SHE WAS MANNED BY AMATEURS AND FINISHED THIRD.

ROUNDING THE LEEWARD MARK. FROM LEFT TO RIGHT LURLINE, HAWAII, LADY MAUD AND GWENDOLYN II.

GWENDOLYN II. SHE HAILS FROM SEATTLE AND IS ONLY 40 FEET ON THE WATER LINE. SHE WAS BUILT LAST YEAR BY TWO BOYS. THE YAWL FINISHED SECOND.

jib topsail, set No. 1 staysail. Run.—S. W. ½ W., 172 miles; latitude, 27 degrees 17 minutes north; longitude, 123 degrees 55 minutes west.

July 8 to July 9 noon.—Wind N. N. W., moderate breeze; sky cloudy; moderate sea. Wind steady, carrying all plain light sails, no balloon sails. Run.—S. W. by W., 180 miles; latitude, 25 degrees 39 minutes north; longitude, 126 degrees 42 minutes west.

July 9 noon to July 10 noon.—Wind hauled to N. E., took in jib topsail and maintopmast staysail in evening as wind too far aft, but set them again during night, wind having gone back to N. N. E. Light squalls. 4 A. M., carried away maingaff topsail sheet, rove new one. 10.30 A. M., took in jibtopsail and staysail and set spinnaker. Wind, N. E. Run.—S. W. by W. ¾ W., 186 miles; latitude, 24 degrees 20 minutes north; longitude, 129 degrees 50 minutes west.

July 10 noon to July 11 noon.—Wind, N. E. to N. N. E., moderate; sea moderate. Carrying spinnaker and No. 2 staysail. Run.—W. by S. ¼ S., 187 miles; latitude, 23 degrees 30 minutes north; longitude, 133 degrees 08 minutes west.

July 11 noon to July 12 noon.—Wind moderate; sea same; light showers during latter part of day. Run.—W. ½ S., 188 miles; latitude, 23 degrees 13 minutes north; longitude, 136 degrees 32 minutes west.

July 12 noon to July 13 noon.—Wind, N. E., fresher weather, clearing. Run.—W. ½ S., 225 miles; latitude, 22 degrees 48 minutes north; longitude, 140 degrees 36 minutes west.

July 13 noon to July 14 noon.—Wind, E. N. E. to E. by N., fresh; sea rising; weather cloudy. In latter half of day wind E. by N., too far eastward to lay our course of W. ½ S., which I had hoped to carry up to Makapuu Head. Run.—W., 220 miles; latitude, 22 degrees 58 minutes north; longitude, 144 degrees 32 minutes west.

July 14 noon to July 15 noon.—Wind varying from E. N. E. to E. by S. Rain squalls occasionally. Sea rising. Am disappointed at finding the wind too far to eastward. Run.—W., 195 miles; latitude, 22 degrees 57 minutes north; longitude, 148 degrees 06 minutes west.

July 15 noon to July 16 noon.—Fresh breeze; cross sea; weather clear. Wind dead aft, spinnaker and mainsail being only sail doing any work. Considerable sea running, causing us to roll wind out of sails. Wind, E. by N. to E. by S. Run.—W. ½ N., 175 miles; latitude, 23 degrees 17 minutes north; longitude, 151 degrees 11 minutes west.

July 16 noon to July 17 noon.—Wind, baffling and lighter; weather cloudy. Have been expecting wind to haul to northward for past two days, but at 1.30 P. M. 16th, jibed to port tack first time since leaving San Clemente on 5th, a distance sailed on starboard tack of 2,010 miles. Run.—W. S. W., 205 miles; latitude, 21 degrees 53 minutes north; longitude, 154 degrees 32 minutes west.

July 17 noon to July 18 at 9.45 A. M.—Wind, strong E. N. E. to E.; heavy sea; many strong rain squalls. Up to 5 A. M. ran 156 miles; saw Makapuu Point, bearing S. W. 25 miles. Carried away spinnaker during night, after carrying it continuously for eight days. Crossed line at 9.45 A. M.

HAWAII, A SCHOONER DESIGNED BY CROWNINSHIELD, ESPECIALLY FOR THIS RACE. SHE WAS BUILT IN THE HAWAIIAN ISLANDS BY POPULAR SUBSCRIPTION. SHE IS 54.2 FEET WATER LINE, 16 FEET BEAM AND 10 FEET DRAFT.

OFFICIAL LOG OF GWENDOLYN II.

Capt. Joseph Redfern, navigator.

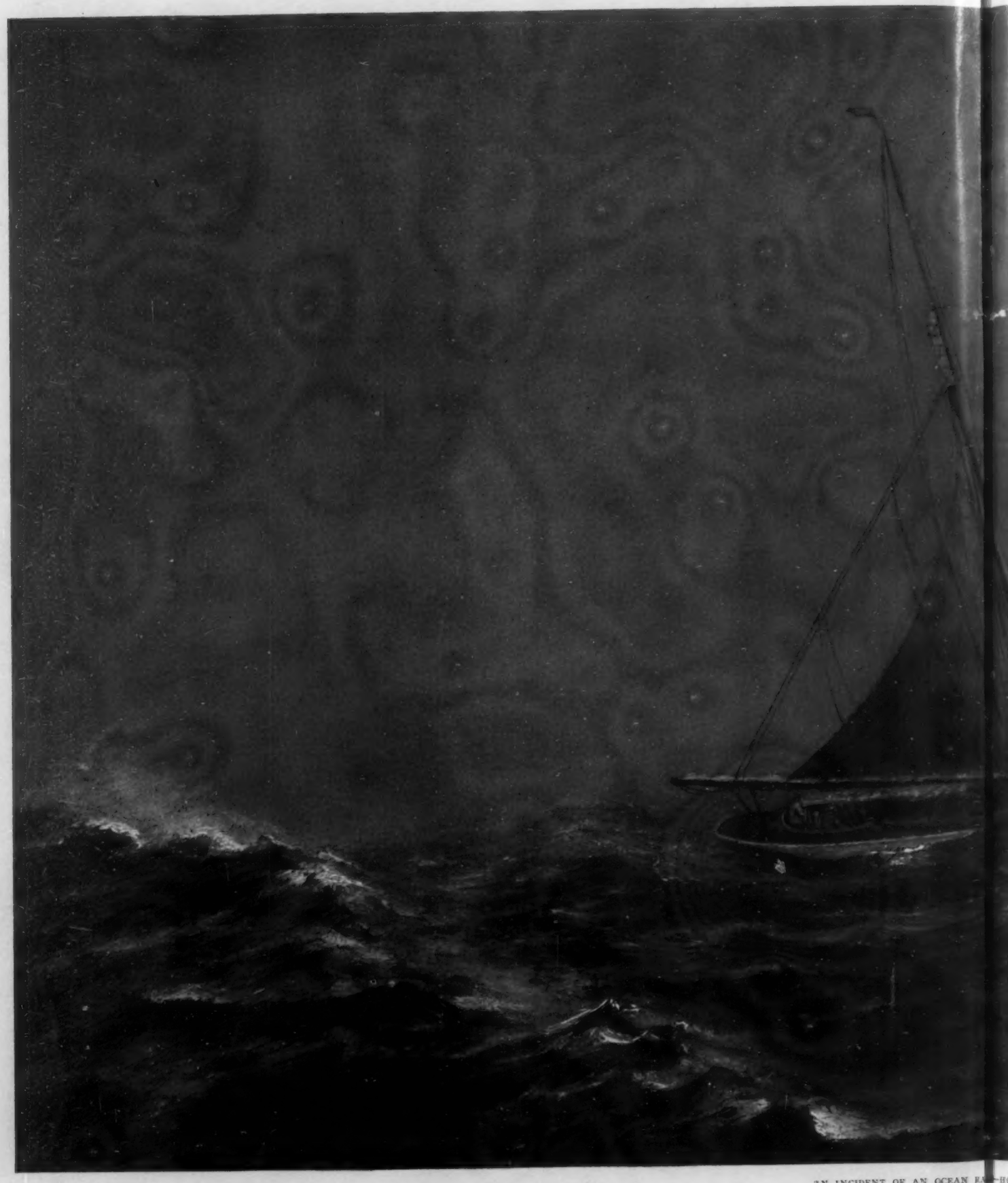
July 4, noon.—Crossed line following the starting gun.

July 5, noon.—Had very light winds, with calms.

July 6, noon.—Latitude, 31 degrees 18 minutes north; longitude, 119 degrees 40 minutes west. Course, S. 41 W. Distance, 127 miles. Carrying all plain sail. Wind, W. N. W.; westerly swell. At 4 P. M., Lady Maud in company; exchanged time and position.

July 7, noon.—Latitude, 30 degrees 1 minute north; longitude, 121 degrees 20 minutes west. Course, S. 51 W. Distance, 134 miles. Unsteady moderate W. to W. N. W. breeze. Lady Maud in

(Continued on page 230.)



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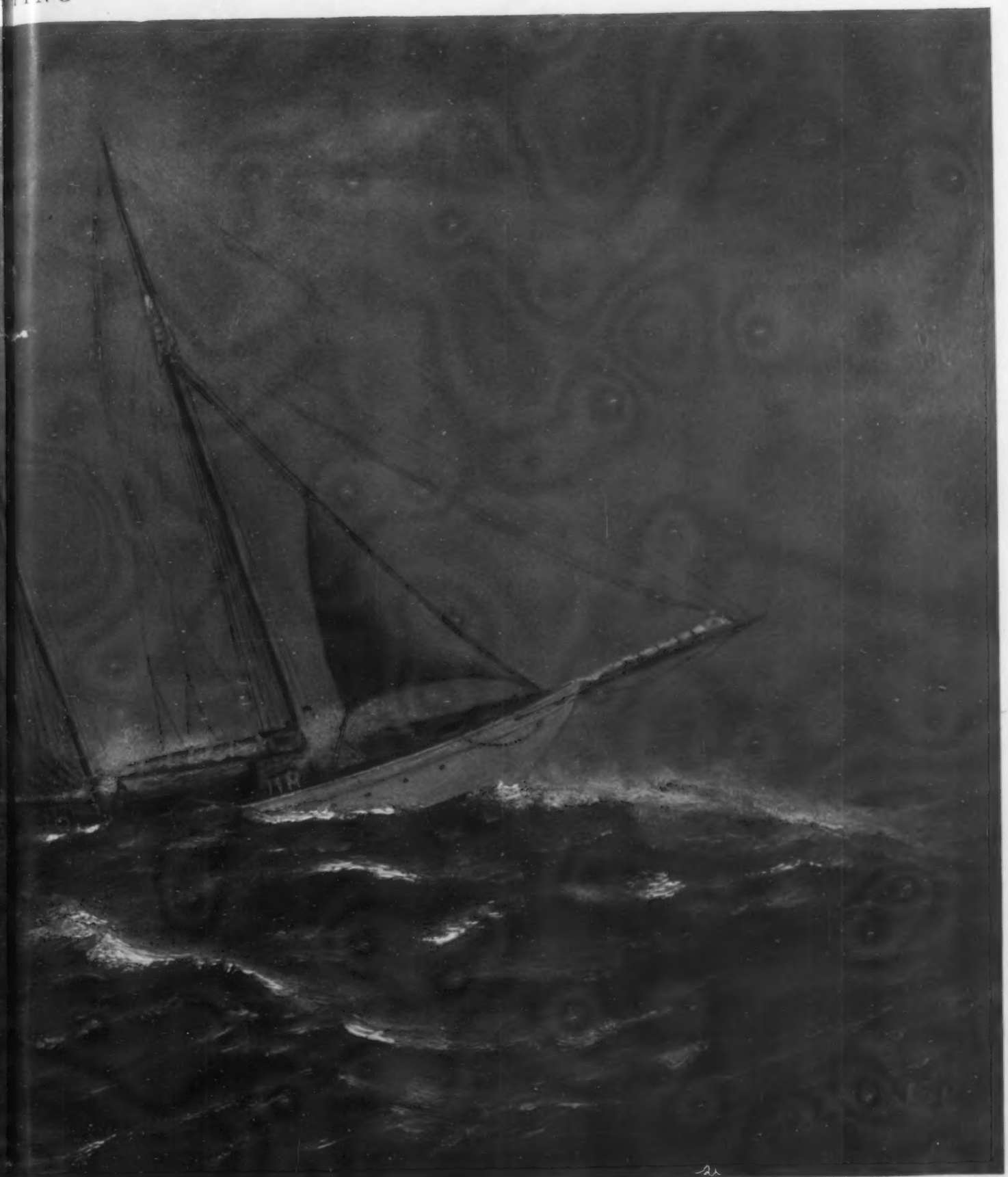


HOVE-TO UNDER STORM CANVAS.

N BINDING

Around the Horn—The Log of a Second Mate

By T. JENKINS HAINS

CHAPTER VIII.

AMONG the islands that rise from the ocean to the southward of Terra Del Fuego is a small, cone-shaped one that, from a short distance to the southward, looks almost like a camel kneeling down with its hump in the air. It is called, probably because of its shape, Horn Island or Hermite Isle, and its projecting end is Cape Horn.

Here it is supposed that Sir Francis Drake, driven to the southward by the fierce northers, after navigating the Straits of Magellan, made a landing and stood, the first white man, at the spot where the Atlantic and Pacific meet in a fierce embrace and seem to wrestle for supremacy.

It is in a region of almost continual storm, and past it sweeps the steady current caused by the great Pacific pouring its mighty waters between it and the Antarctic continent, which is called the Pacific Antarctic Drift.

To the southwest, some miles away, lie the Diego Ramirez, the small group of islands that comprise the farthest south land of the South American continent. These are but small rocks, but happy is the skipper who sights them on his starboard quarter with the wind behind him.

December 25. This is Christmas, and to-day we have celebrated it in the unusual manner of killing, cooking and eating three miserable chickens, which, however, tasted wonderfully good in comparison to the two-year old salt junk. Last night the ship made enough westing to leave Staten Land out of sight astern, and everyone is quite hopeful of turning the corner quickly. All this forenoon it has been calm and several vessels have been sighted, among them the big four-masted Englishman that we spoke several days ago to the northward.

The ship is in fit condition for anything, for the hatches are all recaulked and strengthened by having heavy beams lashed over them, thwartships, and made fast to the ring bolts in the deck. In fact every precaution that a careful captain could take has been taken, except the sending down of the royal and skysail yards, which is usually done in the winter months. In the afternoon the wind came out of the southeast and sent the ship bowling along merrily on her course.

December 26. At 3 o'clock this morning the mate, sticking his head down the companionway, bawled out, "Cape Horn!" The captain, who was asleep, jumped up and was on deck in an instant, while I followed as quickly as possible.

It was broad daylight, but the wind had shifted to the northward and brought with it a thin haze.

Some ten or twelve miles away to the northward rose a rocky hump, while beyond it lay the land of Terra Del Fuego. The hump showed dimly through the gathering haze, but plainly enough for the captain to recognize it as Horn Island. The ship was going along at the comfortable rate of 6 knots, and it looked as though she might possibly give the grim old cape the slip, and go scudding away to the northward on the other side of the world. But the storm fiend seldom lets a vessel pass without letting it know that his power is undiminished, and that he can blow just as hard now as he could several hundred years ago, when Sir Francis Drake first made his acquaintance.

After turning in again until eight bells, I woke to find the ship plunging into a sea that, at the least calculation, must have been full 40 feet in height. This set in from the northwest and kept growing larger and larger as the morning advanced. The captain held on to his canvas, for he was determined to make every foot that he could of westing before shortening the ship down to her proper allowance, and consequently she went tearing into it like mad.

In about an hour a small mountain of water bore down on the ship from the northward, and before she could rise to it, it came roaring upon her deck. It seemed as though it would crush the vessel into matchwood with its great weight, and she settled perceptibly under the heavy load. It came aft with a rush and striking the break of the poop, 8 feet high, went right over it and clear aft onto the quarter deck, washing everything away in its path except the cabin.

As soon as the deck was habitable there was a rush to get in canvas, and the men needed no urging, for had anyone been on the main deck when that sea washed her fore and aft, they would have been either killed outright or washed overboard. The glass had been dropping steadily all the morning, so in spite of the usual belief that the barometer is not to be depended upon in this part of the world, the captain shortened the ship down to the lower main topsail and slacked off the lee sheet about a foot and a half, so as to spill the wind out of it and not have it go sailing for the South Pole on its own account, for canvas and iron, made up into the form of a sail, will seldom stand a pressure of over 50 pounds per square foot. The lower mizzen topsail, which had weathered more than one stiff gale, was carefully furled, and so likewise was the fore; but before the main topmast staysail could be secured the hurricane came in true Cape Horn style, and this last sail burst with a loud crack and was gone. The ship rode it out well with the lower main topsail, which luckily held, and after 6 hours the wind eased up enough for the main spencer to be set, and with it we rode the day out safely enough. By night the storm trysail, or spanker, was got in gear and set for the first time on the mizzen.

At 9 o'clock at night the wind moderated considerably, and several penguins were observed taking shelter under the ship's lee. As it was as light at 9 P. M. as it had been in mid-afternoon, the carpenter took his harpoon and tried to spear one of these birds. After several ineffectual attempts he finally managed to drive the toggle through the back of one that came up within a couple of feet of the vessel's side and hauled it on deck. It was a curious creature, about half bird and half fish, its tiny, hairlike feathers looking as if they served the same purpose that the scales do on a fish. Its flippers were almost exactly like those of a turtle in appearance, and these, with its short duck legs and ducklike head, made it a most curious creature indeed. I wanted to save the skin and stood on the break of the poop waiting for a

safe chance to cross the main deck and get forward where the carpenter was standing; as I stood there, a sailor cut off the creature's head to stop its struggles and thus ruined it as a specimen.

December 27. It is still blowing a gale, but has moderated a little. All day the ship has been hove-to and driving off to the southward. At noon her latitude was 58-30 S. The temperature is getting lower and lower, being about freezing at present. There is little or no darkness, for I can see to write this in the cabin at 11:30 P. M. without the aid of a lamp. The cold on board of a ship is felt keenly by everyone, for there is no warm place on board to go to for a short respite. Even in the cabin of this ship, fire is not allowed, either on account of the desire to save fuel, or for the fear that the mates will take to it too gratefully and thus neglect their duties on deck. The "doctor"—the cook—has the best of it in this weather, and everyone envies him his happy lot.

December 28. While asleep this morning I dreamed that the ship had struck on an iceberg, and was rapidly sinking. I tried to rouse myself, but seemed paralyzed and the water appeared to be pouring in upon me with a great roar. Then with a great effort I awoke and heard the deep, booming roar of a gale overhead, mingled with the cries of men.

Getting into a pair of rubber boots I was on deck in a few moments, and as I left the shelter of the companion hatch the wind almost threw me down. Recovering myself instantly, I looked forward and saw the men of the mate's watch at work trying to save canvas, and the captain and mate bawling orders interspersed with oaths. As the gale had decreased, the fore topsail and a reefed foresail had been set forward, while the lower mizzen topsail had been set aft; and without any warning whatever, the wind had burst out afresh from the northwest with hurricane force, catching the ship with the canvas on her. By dint of good management the captain had saved everything but the foresail, which was hanging goose-necked and had defied all efforts to clew it up. But the cook, steward and carpenter tailed onto the buntlines with the rest and finally by a masterly piece of canvas handling the lee clew was safely stowed without even shaking it. This required a fine knowledge of how to save canvas in a storm, as a single slat of the clew would have meant almost certain loss of half the sail. As the morning advanced, it found Silver Sea hove-to with nothing on her but her lower main top-sail with the lee sheet slacked off to spill the wind out of it. The sea soon began to get new life and tore its way across decks like water over a rock at half tide, sweeping the running rigging, which had been carefully coiled on the pin rail, to leeward in a mass, where it washed about in a hopeless tangle and trailed out of the open water-ways overboard.

After fifteen hours of this kind of misery no one was sorry to see the ship able to get her lower topsails on again and become a little steadier. The clouds broke up a little and we found that the ship was in 60 degrees south latitude. Several smashed planks drifted past the ship, and two vessels were sighted a few miles to windward, both hove-to under main topsails.

It is curious to notice the effect of the presence of a ship, even at the distance of 5 or 6 miles, on the sailor. He sees and feels companionship in the other vessel's presence and watches her and talks about her as if she were another human being destined to be his companion on this dreary voyage.

December 29. I lay in my bunk and listened to the roar of the gale overhead and the rattling volleys of hailstones on the deck. Thoughts of warm firesides and good, fresh food made one heartily shoresick. How sorry I felt for the mate's watch as they took what shelter they could get under the lee of the forward house. The steady tramp of the mate, walking to and fro on the quarter directly overhead, gave me the sense of security that is felt from the presence of a faithful watchdog; and also gave one the feeling that the watchdog was having a cold and lonesome time of out there in the driving hail and sleet. How selfish one becomes under the circumstances; it will be so hard to leave the warm bunk and dry clothes to go out and relieve the dog when the next watch is called.

On deck things appeared to be in the same dismal condition as usual. We were hundreds of miles to the southward of Cape Horn, hove-to in the tremendous seas of the Pacific Antarctic Drift.

As it cleared off a little during the afternoon, we sighted eleven vessels, all hove-to under the shortest possible amount of canvas. This is probably the largest part of the Cape Horn fleet. Interest runs high to know who they are, and the mate, as usual, recognizes every one of them with his dim vision, made all the more uncertain by the hardship and exposure he has been forced to undergo.

Toward night the wind falls a little, and so likewise does the glass, which is now at 28.2, or about three or four tenths lower than it usually gets near the center of a West India hurricane. This extremely low glass, partly due to the very high latitude, is often noticed in these seas and is the cause of about two merchant captains out of three believing that it is of no use as a weather indicator. No truly ignorant and self-confident Cape Horner will trust a barometer for an instant in these latitudes.

As the mercury fell, the wind shifted to the southwest, and one after the other of the vessels in sight woreship and came up on the port tack, which allowed them to head up to the sea better and consequently make better weather of it. At 9 o'clock we followed suit and were soon rooting into the sea almost dead on.

January 3. The last four days have been but a repetition of those before them, hail and snowsqualls, followed by heavy blows from the northwest, alternating with uncomfortable calm spells.

(To be continued.)

The Question of Motor Boat Measurements

BY HUGH S. GAMBEL

CONSIDERING the present interest shown in motor boats, especially from a sporting standpoint, and the numerous events scheduled throughout the country and the number of new entrants into the sport, the growth or progress has been all that could be expected under certain conditions. The question has often been asked, "Is the sport progressing or is it deteriorating?" The cause for such doubt has arisen, perhaps, from the fact that in many of the leading events there has not been the same interest shown by entrants as formerly.

What is needed is the establishment of some better method for handicapping than is now in use. Instead of there being one rule prevailing all through this country, we find that in the East alone there are two or more rules. We go north and we find there is another set of rules, we go west and we find another set or two and we go south only to find, possibly, a different method altogether. The man who is about to enter the game does so purely from a sporting standpoint. He spends possibly thousands of dollars for a boat. He races in the East and meets with great success, so he looks for new fields to conquer. Then he finds that he has to contend with entirely different conditions. They may be more advantageous than the rule he has raced under or possibly less so; hence the indifference. But if there were but one rule and that rule not subject to many changes each season, the difference would be eliminated and the interest in the sport would be correspondingly greater.

The fact must not be lost sight of that a great many, if not the greater percentage of those entering the sport, are new comers, as it were, in yachting. They have never before owned boats of any kind whatever. Many of these would add greatly to the success and progress of the sport if they knew that after they had received designs from their naval architects, the rules to which their boats were to be built, would not be changed before their craft could be put in the water. The man building a boat desires to have it receive the proper rating. If it is beaten in a race, he doesn't want his defeat to be due to unjust handicapping, and if he desires to race in other parts of the country, he wants to know that his rating will hold good.

When we compare the success of other countries in the sport, and especially France, it would seem that, profiting by their experience, we might, in a great measure, be guided by their example. Take for an example France and her methods for racing boats. There is possibly no event in the world that is watched with as much interest by those interested in the sport as the events at Monaco. While at first they sacrificed everything possible for speed, they now have become more rational in the matter of building, for their new racing craft have stability and seaworthiness. Their handicapping is by classes. Boats are divided into two groups, racers and pleasure boats or cruisers; the racing boats in turn are divided into sub-classes according to their length over all, as follows: under 6 metres, 6 to 8 metres; 8 to 12 metres and 12 to 18 metres. Pleasure boats are classified according to length, motor power, width, height of free-board, number of seats and the weight. The first class are called the "half-tonners," and include boats having a mono-cylinder motor of 106 mm. or more, or its equivalent in piston surface. In this class the length is optional, but the boat must have a minimum weight of 500 kilos, and the hull must have the same proportions as the cruisers in other classes, calculated on a scale in accordance with its length. In each class there is a limit placed on the power of the motor, and this limit is determined by the bore. The bore for the second class is 90 mm. per cylinder for motors of four cylinders, or its equivalent in piston service; for the third class the bore is placed at 106 mm. per cylinder for the four cylinders, or its equivalent; for the fourth class the bore must be 130 mm. Each boat is required to have a certain height of free-board and a specified number of seats, and be able to carry during the race, in perfect safety, a number of adult passengers comfortably seated. The number of passengers less one must be equivalent to the number of metres represented by the length of the boat, each fraction of a metre counting as a whole. Nevertheless, by all boats of less than 6 metres, where the co-efficient of utility is not so great, only four passengers need be carried. In the absence of passengers, ballast, weighing 70 kilos, can be put in for each person, but there must be room on board for the passengers. The height of free-board must never be less than that set forth by the formula—0.20 + 0.03 L—L being the length of the hull. The free-board is measured at the greatest sectional with the regulation fittings and the necessary fuel on board. Coamings or any other addition or ornament will not count for free-board, which ends with the hull, whether this be terminated by a sharp or round line.

A minimum weight is fixed for each boat. It includes weight of machinery, but not of the water, gasolene or spare parts of mechanism. Boats of 6 metres and under must have a minimum weight of 650 kilos; boats of from 6 to 8 metres, a minimum of 800 kilos; boats of from 8 to 12 metres, a minimum of 1,200 kilos; and boats of from 12 to 18 metres, a minimum of 2,000 kilos. No boat is permitted to start in a race for which it is entered without having been thus measured and weighed.

The solution of the entire problem of proper handicapping seems to have its foundation in this French method of racing according to classes. The adoption of such a method in the United States would enable owners to race in all parts of the country without the annoyances that now retard the progress of the sport here. Another very important thing is that the designer would know that he was to design a boat for a certain class and would feel reasonably sure of producing something that would be creditable to himself and the owner.

Furthermore, the French method does away with all red tape and saves time, trouble and a great part of the expense which owners of boats entering events are now put to. In England they have already established a class corresponding to that of the French for boats of from 6 to 8 metres, and they also have the 12-metre class, and this enables them to race their boats against those of France.

CLEVELAND, CHAMPION 21-FOOTER OF THE CLEVELAND YACHT CLUB.

CRUSADER, WINNER IN UNIVERSAL CLASS B. SHE REPRESENTED THE ROYAL CANADIAN YACHT CLUB.

ZORAYA, ROYAL CANADIAN YACHT CLUB, WINNER IN UNIVERSAL CLASS A.

The Inter-Lake Regatta

By JOHN F. CUNNINGHAM

Photographs by Frank Smith

THE annual regatta of the Inter-Lake Yachting Association is the great classic-yachting event of the Great Lakes, and has been for many years, but all previous meets were eclipsed by the glory of the one held during the week of July 19, 1908. In the number of boats present, number and quality of the races, both sail and power, attendance of active yachtsmen and general interest, it was probably the greatest week of yachting ever seen in the interior of this country. Credit for the great success of the regatta belongs to the entire membership of the various committees in charge of the arrangements, and particularly to George H. Worthington, of Cleveland, O., who, as commodore of the I. L. Y. A. made a business of making the regatta the success that it was.

He began as soon as he was elected last winter by calling a meeting of representative yachtsmen and appointing committees composed of men whom he knew could be depended upon to perform the work.

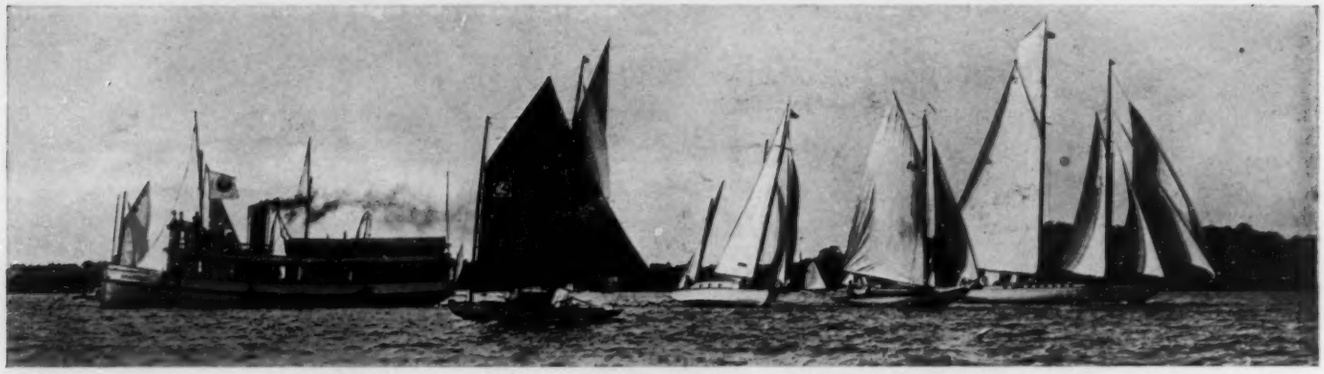
The most prominent new feature of the meet was the presence of a fine fleet of Canadian yachts which came upon invitation, as they did not represent clubs that belong to the I. L. Y. A. Commodore Worthington not only went in person to extend to them the invitation, but the week before the meet he took the flagship Priscilla to the Lake Erie end of the Welland Canal and met the Canadians. At the same time a fleet of sail and power boats from Buffalo assembled at that point and on July 13 a race was started across the lake to Erie, Pa., the winner to receive a flag presented by the Commodore. From that place the fleet raced to Farrport, O., and from there to Cleveland, where Friday, the 17th, was spent by the visitors enjoying the hospitality of the Cleveland yachtsmen.

On Saturday morning the start was made for the islands at the west end of Lake Erie, sixty miles from Cleveland, and in this cruise the Canadian fleet was joined by a number of the boats from the Cleveland and Lakewood Yacht Clubs. Rough weather was experienced by many of the boats, and a light weather sailor would have turned back rather than beat through what had to be weathered before the islands were reached. But the average sailor of the Great Lakes is used to the roughest sort of weather and every boat came through safely and without serious accident, although they were scattered all over that end of the lake at times. Sunday, the 19th, saw a constantly increasing fleet anchored under the lee of Gibraltar, one of the finest and most beautiful little harbors on the entire chain of lakes. At such times this picturesque little harbor presents a picture that must be seen to be appreciated. Aside from the great natural beauty of the place, there are boats of every description, from the old square-rigged sand schooners that are there every year to give their crews a look-in on the sport, to the most modern productions of the designer in sail and power racing craft. Opportunities for a study in boat architecture are here at their best.

After the first greetings were over, speculation on the outcome of the races began, for above all else this was a race meet, and the primary purpose in attending was to compete in the various events.

Of recent years the restricted classes have attracted the greatest interest, as is only natural. The old cruisers still furnish more or less sport, but the handicapping that is always necessary when boats are matched that are unlike, serves to detract from the public interest.

The restricted classes that are recognized by the I. L. Y. A. are the 21-foot, 18-foot, 16-foot and cat boat classes, and each class puts up a race that is full of intense interest, even for the spectator who is not an expert. For in these classes the racing



START OF THE RACE FOR YACHTS COMPRISING THE UNIVERSAL CLASS B, WHICH CRUSADER WON.

is boat for boat, and when the line is crossed at the finish it is known at once who has won. Just as much skill may be required in the larger classes, but they can never furnish the same quality of racing, so long as the various boats differ so much in type and construction.

The prizes at this regatta were the best ever hung up at an I. L. Y. A. regatta. The cash prize was adopted as the basis, and the clubs, composing the association, contributed according to their ability, to make up the aggregate purse. The contributions totalled something over two thousand dollars, and the prizes for the various classes were allotted as follows:

Sailing—Cruisers measuring 33 rating and over, under Class A, universal rating rule; first prize, $150; second, $90; third, $60. Class B, cruisers rating under 33, u. r. r.; first, $150; second, $90; third, $60. Class D, veteran cruisers; first, $75; second, $45; third, $30. Class F, 21-footers; first, $215; second, $130; third, $85. Class H, 18-footers; first, $125; second, $75; third, $50. Class J, 16-footers; first, $63; second, $37; third, $25. Class C, cat boats; first, $50; second, $30; third, $20.

Power—Class A, cruisers, all power boats having permanent cabins and cruising accommodations, $150. Class B, open launches of speed between seven and fourteen miles per hour. Class C, speed boats, $300.

Dinghys—Power dinghy race, $25. Professional rowing dinghy race, $25. Amateur rowing dinghy race, $25.

Other Sports—Swimming, diving, canoe tilting, obstacle canoe race, man-over-board canoe race, etc., $125.

The first race of the schedule was started exactly on time Monday morning, the 20th. The conditions were ideal; a clear sky, an easterly breeze, blowing about ten miles per hour, and the greatest number of starters ever seen at an Inter-Lake meet. Out of forty-eight entries there were forty-five boats that actually crossed the line after the gunfire.

The greatest interest of the day was centered in the race of the 21-foot class, which Cleveland won over Spray, the former unbeaten champion of the I. L. Y. A., by a margin of twenty-nine seconds. Cleveland got the better of the start, beating Spray across the line by about fifteen seconds. She held her lead around the entire course. Cleveland demonstrated the fact that the changes that were made in her hull last winter, when her compromise center board was replaced by a standing keel, were prompted by excellent judgment. The race in this class was clearly between the two leaders, Spite, Toledo, and Otsiketa finishing third, fourth and fifth, with plenty of light between them. On the first leg all carried balloon jibs, with the wind just aft of abeam. Cleveland got a perfect start, crossing the line with the gun and having Spray well blanketed to leeward. Otsiketa soon overhauled and passed Spite after a luffing match. It was another broad reach on the second leg, with booms to starboard. Spray did not gain on Cleveland on these reaches, although that was her strong point of sailing. Rounding onto the last mark for the home stretch, Toledo took a stretch out along the second leg looking for a new breeze, but did not find it. Spite soon passed Otsiketa on the close-hauled work, but she could not gain on the leaders, that were fighting their battle out by themselves and resorting to every trick in the game to get away from each other. The result was not assured until the line was crossed, and a mighty cheer went up from the Cleveland contingent.

In the 18-foot class there was another worthy contest. Fudge got a poor start, but gave Hayseed a scare toward the finish. Hayseed held her lead over Bonitwo until the last leg was reached, when Bonitwo passed her on the beat home. Hayseed again worked into the lead by a couple of short tacks, however, and finished more than a minute ahead of Bonitwo. In the meantime Fudge had split tacks and found some good wind that enabled her to beat Bonitwo by thirty-seven seconds, and

START IN THE 21-FOOT CLASS. THE FIRST BOAT TO START AND TO FINISH WAS CLEVELAND.

SELLA, R. A. LUEDTKE'S 16-FOOT SLOOP, CHAMPION OF CLASS J.

TOWING RACERS OUT TO THE STARTING LINE. A WAY OF SAVING TIME IN LIGHT AIRS.

come in by exactly the same time behind Hayseed, the winner.

In Class A, under the universal rating rule, the race was between Zoraya, of the Royal Canadian Yacht Club, and Shark, of the Toledo Yacht Club. The big sloop from Toledo had to give the Canadian boat 11½ minutes' time allowance, and she had no chance to make it all up. She got good leads on the reaches, but on the windward work, to fetch the home mark, the Toronto 30-footer actually sailed faster boat for boat. Zelma, Aggie and Pirate were badly beaten .

Canadian boats won another decisive victory in the universal class B, Crusader and Eleanor spinning out a good lead and sailing their own race. It was a great class of boats to start, however, twelve crossing after the gun. Eleanor got a good lead, but Crusader overhauled her on the last leg and beat her to the finish by a minute and 22 seconds.

The 16-foot class furnished a surprise to the Cleveland contingent, who counted upon Hoorah again taking down the prize. The little white boat got a poor start, however, being blanketed by Gamble and Nancy, while Nancy and Sella II ran away from her in the smooth water off the wind. Hoorah gained about six minutes on them on the windward work home, however.

The cat-boat start was a fine thing to see, with the entire class closely bunched as they left the line. Toledo got the start, but the three boats from Detroit soon worked into the lead and finished one, two, three.

For the second day's race there were thirty-six boats at the line. The course was the same as on the first day, triangular, and covered nine nautical miles. The breeze was a little fresher, blowing about twelve miles per hour at the start, but diminishing to eight or nine at the finish. It was still from the eastward but more northerly, so that the first leg was a close reach, the second a spinnaker run, and on the home stretch, closehauled.

The race was again close in the 21-foot class. Cleveland got the start, but Spray and Spite slipped away through her lee and beat her to the first mark. Toledo served the same medicine to Otsiketa. On the slide on the second leg Spite passed Spray and took the lead and was never headed. Cleveland passed Spray on the close-hauled work of the last leg, but could not catch Spite in the waning breeze. Otsiketa crept into fourth place ahead of Toledo, and they finished in that order.

In Class A, Zoraya again did things, getting the start and leading Shark for some time. As they finished, the Canadian boat was but twenty-seven seconds behind, and her time allowance made her winner by a big margin. In Class B, Crusader beat Eleanor by two minutes. Elsie sailed a good race, and finished only two minutes behind the Canadians.

Fannette got the start in the 18-foot class and was not overhauled until within a half-mile of the first mark. Hayseed rounded the mark slightly ahead of Fudge, Bonitwo came next and Fannette fourth. Hayseed and Fudge held their respective positions on the spinnaker run to the second mark, while Bonitwo was passed by Fannette. Bonitwo regained third place on the third leg, however, and gained somewhat on Fudge, Hayseed increasing her lead to the finish.

Sella II set the pace in the 16-foot class. Shake was second all the way around. Hoorah started in third place, but was passed at the first mark by Gamble. The spinnaker run increased Gamble's lead, but on the windward work of the third leg, Hoorah worked into third position again. Nancy, the winner on the first day, was a poor last at the finish.

The old timers under the classification of "veteran cruisers" attracted a lot of attention from the older yachtsmen on this day. There were nine starters. Enright got away first and was never headed. Juanita of Toledo came in second, while Commodore Gardner, of Lakewood Yacht Club, finished in third place.

The power boat races in the afternoon were the best that have ever been seen at an Inter-Lake event. Twenty-four boats started in the free-for-all race, and all but one finished. As luck would have it, the one that did not finish was Winton, owned by Commodore Alexander Winton, of the Lakewood Yacht Club, and generally conceded to be the fastest boat at the meet. She cracked a cylinder and her power plant was put entirely out of commission. The time prize was won by Rainmaker, of Detroit, her average speed for the ten miles being 22.04 miles per hour. Scripps was just behind, with a speed of 22 miles. The race was protested by Scripps, however, as the flagship Priscilla inadvertently interfered at the start. The protest was sustained and the race-off was set for Wednesday, but finally postponed to Friday. At that time, however, Rainmaker failed to appear, and Scripps ran over the course alone and took the free-for-all prize. Silver Fizz finished third. In the cruiser Class A, first place was won by Grace A, of Detroit, with Bab, of the Monroe Yacht Club, second, and Wilanna, of the Buffalo Motor Boat Club, third. But two boats were entered in the open launch class; Juliette, of the Gordon Park Motor Boat Club, Cleveland, finished first, and Resolute, of Toledo, was second.

The sailing races on Wednesday were a fizzle, as the breeze

(Continued on page 226.)

HAYSEED, THE CHAMPION 18-FOOTER. SHE REPRESENTED THE LAKEWOOD YACHT CLUB.

D. Y. C. NO. II. SHE FINISHED SECOND IN THE CAT-BOAT CLASS.

ENRIGHT, TOLEDO YACHT CLUB. WINNER IN VETERAN CRUISING CLASS.

English Yachting

WHITE HEATHER, SHAMROCK'S CLEVER RIVAL IN THIS SEASON'S RACING IN ENGLAND.

London, Sept. 17, 1908.

AT Ostend the other day the talk was of a Herreshoff 23-metre boat for next year's racing in European waters. I do not know what truth there is in the statement, but usually well-informed persons seemed to be convinced that Mr. Morton Plant had cabled an order for such a vessel. My own view is that if a boat of the kind comes here she will scoop the pool, because it is demonstrable that Mr. Herreshoff is still a little cleverer than Mr. Fife. Shamrock—the latest Shamrock, that is to say—is a marvellously clever boat in moderate weather, but it would be foolish to ignore the fact that her superiority over White Heather is not so great as one would have expected to see in a yacht of a succeeding year. At Dover early in the month I had a talk with Wringe on this subject. He was, I may say, very full of Reliance. What puzzled most of us in the race from the Nore to Dover was that sometimes Shamrock made good weather of it and sometimes she did not. The seas were pretty bad for ships of yacht shape, but why Shamrock should do well in them at one time and badly in them at another was inexplicable. Wringe said that the day would have just suited Reliance and that she would have climbed from sea to sea with easy motion while all the others were pitching about. White Heather beat Shamrock in this race, and so did the Nicholson-designed boat Brynhild. In Wringe's view, Reliance would have lost sight of them all.

But whether Mr. Herreshoff is able to build a boat to our International rule, capable of outsailing the best we can do ourselves, seems to me to be a minor point compared with the advantage it would be to him to get a line in this way as to what to expect in the next Lipton challenger. He got a very good line in 1894 for Defender through the sailing of Vigilant against Britannia. This was a better line, in fact, than he had got through Navahoe the year before, though I am positive that he did not expect in 1895 anything in the least like Valkyrie III. Still, through both boats he is bound to have got some valuable information, and we imagine here that he would be only too glad of the opportunity to execute this commission for Mr. Plant.

Cowes Week is counted the great carnival of the British yachting year, for, as a rule, the owners of the big racing craft of the Continent make a point of taking part in it. This year was exceptional, as the Olympic regatta, which preceded the racing at Cowes, attracted several small Continental yachts. But even with this additional element of interest the Solent regattas were poor by comparison with former years. In fact, Cowes seems to be declining as a yachting centre, and from a variety of causes. The first is that since Queen Victoria died and Osborne was turned into a naval college the aristocracy has deserted the Medina. The big houses along the Green are not letting as they did. The big hotel of the place is only open now for Cowes Week, and generally there are more yachts in Southampton Water than in and off the Medina. Then, a great many people went out of yachting during the South African war, and have never returned. Motoring attracted most of them, and keeps them in its thrall. Further, there is less money about than there was before the war. That is the hard fact of the situation, because it hits all the smaller trades people and spreads cut, so to say, the ill effect. After 20 years of yachting I am bound to say that 1908 is the worst yachting year on record.

The sport was probably as keen as it ever was. Indeed, I do not recall many years at Cowes in which there were four big cutters or such a numerous group of the class corresponding to the 15-metre boats. Shamrock maintained the reputation she had earned in the earlier part of the season of being the fastest in her group. Sailing by the wind in true breezes of jackyard topsail strength, she is easily the fastest cutter which Fairlie has ever produced. But with big bonnets off she is quite clearly not fast enough to beat both Brynhild and White Heather. She might beat one of them, but not both in one race.

ROBERT MACINTYRE.

A Query About Lights on Motor Boats

EDITOR YACHTING, 20 Vesey Street, New York:

Dear Sir:—As a reader of YACHTING, I am going to take the liberty of asking for some information. There seems to be so many different constructions of the law relative to private motor boats carrying lights, life preservers, bells, etc., that I am myself somewhat puzzled as to just what is what, therefore I should like you to give me answers to the following:

I have a 27-foot open cabin launch for my private use.

1. How many life preservers must I have to comply with the law?
2. What lights, how many, and what size? Will a combination (three color) light comply with the law?
3. How many, and what size bells?
4. What kind of fog horn and size?
5. What kind of whistle and size?
6. What kind of lettering for name, what size, and where must it be placed? Also, is it necessary to have hailing port on boat?

If you cannot give me this information kindly let me know where I shall write to get it. If there is any place I can get this law in printed form I shall be very thankful to you to give me the address.

Very truly yours, J. B.

1. There is nothing in the Statutes requiring the owner of such a boat to carry life preservers. As a reasonable precaution it is deemed advisable that some life-saving appliances should be carried, but none is prescribed by law on a vessel of this character.

2. When such vessel is operated after sun-down, she must carry the same light as a steam vessel, namely, two white range lights and colored side lights.

3. Under date of July 10th last, the Acting Secretary of Commerce and Labor advised this office that in the opinion of the Department "the law does not appear to permit the use of a three color combination light." It would, therefore, seem that separate lights must be carried.

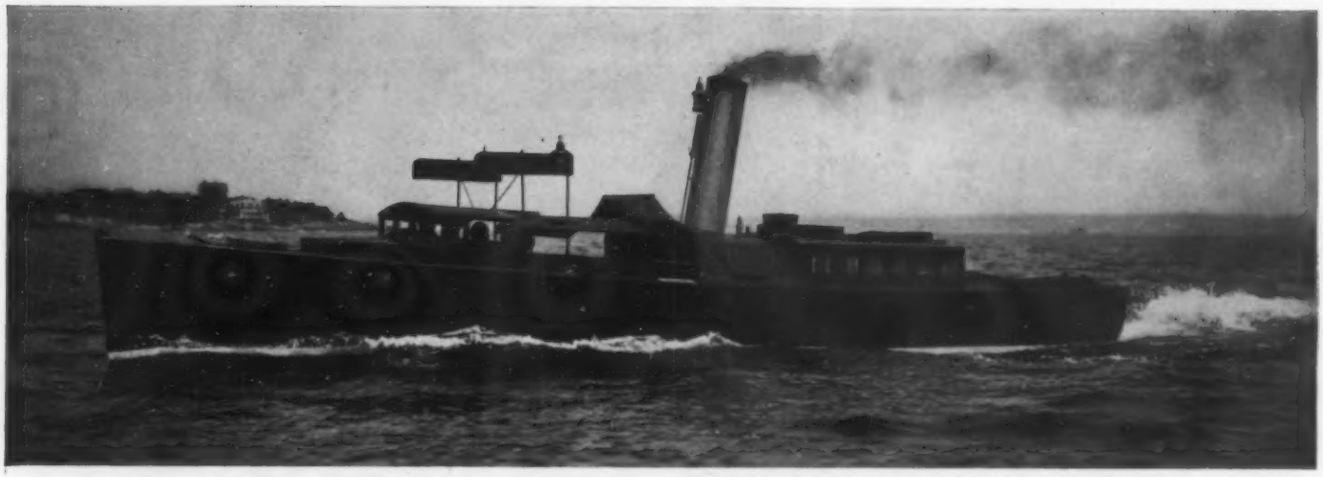
4. The law prescribes that an efficient bell shall be provided. No size of bell is prescribed. It must be efficient for the purpose for which it is provided, namely, the producing of certain signals.

5. The remarks concerning bell can be applied to fog horn.

6. The law required that an efficient whistle or siren shall be provided. Any whistle or siren that will produce a sound of sufficient volume and is capable of a "prolonged blast," namely, a blast of from four to six seconds duration, would be considered efficient.

7. There is no provision of law under which the name can be required to be marked on such boat. It is desirable for purposes of identification that a name should appear conspicuously on some exposed part of the boat, but as stated, this matter is not regulated by Statute.

8. It is not necessary to have hailing port marked on such a boat.



THE STEAM LAUNCH BETH. HER ENGINE DRIVES HER ALONG AT A SPEED OF 18 KNOTS.

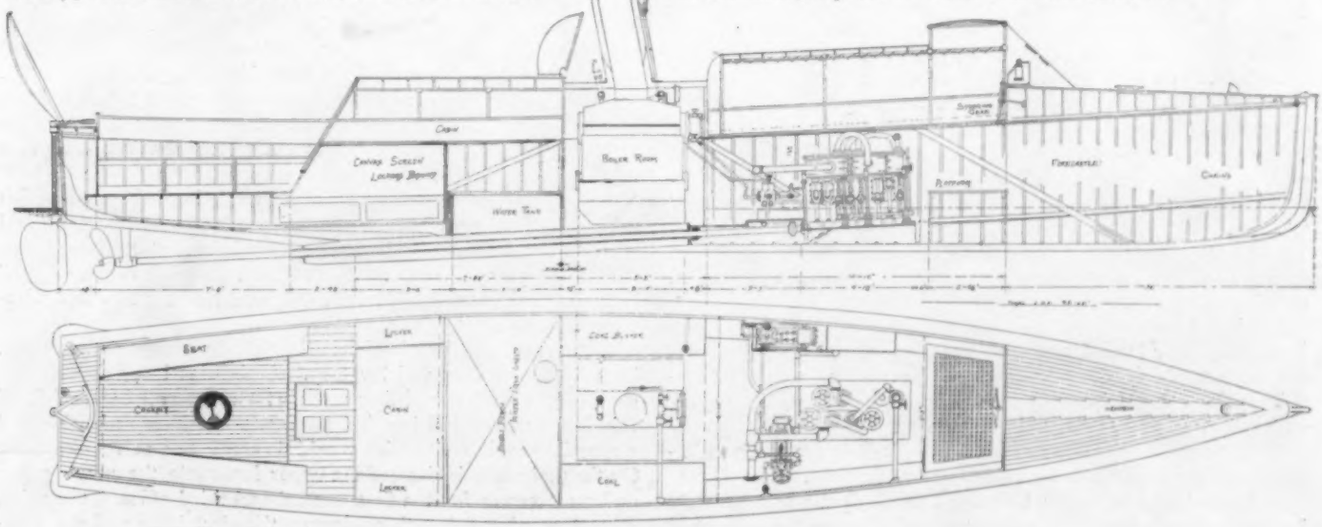
Beth, a Forty-Five and One-Half Foot Steam Launch

THE steam launch Beth, designed by W. S. Burgess and built by W. S. Burgess Co., Ltd., is of the Videtт type, capable of making 18 knots per hour. She is 45 feet 6 inches over all, with a water-line length of 45 feet. Her beam is 6 feet 10 inches and her draft 40 inches. The forecastle and chain locker occupy a space of 11 feet 3¼ inches in the bow, aft of which is the steersman's platform under a raised trunk lighted by drop windows in front. This platform is arranged to afford the steersman a good view forward and on each side, and the wheel is of the automobile pattern. Behind the platform is the engine space, 10 feet 10 inches in length, housed under a standing roof with side curtains. The engine is a 100-horsepower Thornycroft, has four cylinders and is of the inclined, so-called "Daring" type. The cylinders are of the following sizes: high pressure, 4 inches; intermediate pressure, 6 inches; and two low-pressure cylinders, 7 inches; with a stroke of 6 inches; maximum revolutions, 800. Auxiliary machinery consists of one Blake duplex feed pump and a Blake air pump. Steam is supplied at a pressure of 250 pounds by a Herreshoff boiler of 265 square feet heating surface, with ⅝-inch diameter tubes. About two tons of coal are carried in steel bunkers abreast the boiler. Three hundred gallons of water are contained in four copper tanks, two under the boiler and two under the cabin transom.

Aft of the engine space is the boiler space, 5 feet 3 inches in length, extending the full width of the boat. The boiler house is almost flush with the roof of the after trunk cabin, which is 7 feet 5¼ inches in height, beneath a trunk of the regulation horse-car type, fitted with dropping sash windows at the sides.

At the forward end of the cabin is a double bed, with a water tank underneath. This bed is 3 feet 11¼ inches wide, and the standing room aft of it is 3 feet 6 inches in length, with a locker at each side. Between the cabin and the after cockpit there are two inclined folding doors, and the cockpit is also separated from the cabin by a bridged deck 2 feet 4¼ inches in length, and extending across the full width of the boat. The after cockpit is 7 feet in length, with seats running along each side, and has a round brass hatch set in the floor giving access to the storage space below.

Beth was thoroughly tested on a cruise to Bar Harbor in the early part of April, when, during heavy weather, the reliability of her machinery was no small source of comfort.



PROMENADE DECK. PORT SIDE, LOOKING FORWARD.

NAVIGATING BRIDGE, LOOKING TO STARBOARD. PROMENADE DECK FORWARD, LOOKING AFT.

LOWER BRIDGE, LOOKING TO STARBOARD.

Steam Yacht Iolanda

A TWIN-SCREW YACHT WHOSE ARRANGEMENT AND FITTINGS RENDER HER THE LATEST THING IN LUXURIOUSLY APPOINTED CRAFT

IOLANDA, Commodore Morton F. Plant's new steam yacht, which replaces his former craft, Venetia, which was launched abroad last March, reached New London on August 29 with a 220-foot homeward-bound pennant floating from the maintopmast.

On this, her maiden trip, which was a rough one, she had but two of her four boilers in use, and maintained an average speed of 12 miles an hour.

With steam in all four of them, and with a supply of 400 tons of coal on board—two-thirds of her bunker capacity—she had previously made on her trial trip a speed of 19 knots per hour over a measured mile.

She is in many ways a remarkable craft and would, by reason of her dimensions alone, be a notable addition to the pleasure fleet of this country, or, for that matter, of the world.

She is 305 feet in length over all, 37 feet 6 inches beam, 23 feet in depth. Fully loaded, and with 600 tons of coal in her bunkers, her extreme draft aft is 17 feet 3 inches. Her twin-screw machinery is of the triple expansion, four-crank type, developing from 3,000 to 4,000 indicated horsepower.

A feature of her equipment is that the boilers are partly cylindrical marine return tubular and partly water tube.

This combination, with which the Iolanda is the first yacht to be fitted, affords the special advantage of allowing the raising of steam and getting away at practically a moment's notice, also of providing additional speed at short notice. The bunker capacity of 600 tons gives a cruising radius of 6,000 miles.

On her trip across the Atlantic, steaming at the economical speed of 12 knots, her coal consumption was 30 tons per day.

She is schooner-rigged and has a clipper bow and round stern. Her raised forecastle extends for about one-quarter of her length aft, from which point a spacious deck extends along each side of the house.

There are four decks, surmounted by a flying bridge, on which are located the steam-steering wheel, engine-room telegraph and search light. On the bridge deck, from bow to stern, the accommodations are as follows: Chart house, captain's cabin, officers' bathroom, accommodations for the operator of the Marconi wireless telegraph.

The promenade deck is divided into shade deck, smoking room, large lobby, armory and lavatory. Amidships is a private suite, consisting of a large sitting room, stateroom and bath. Aft of this is a surgery and hospital fitted with an X-ray machine and a complete equipment which would do credit to a private hospital. On the main deck is situated the upper forecastle, the crew's galley and mess rooms for the first, second and third officers, the chief, second, third and fourth engineers, the electrician and the Mar-

FROM LEFT TO RIGHT—DRAWING ROOM, LOOKING FORWARD. SMOKING ROOM, LOOKING FORWARD. PRIVATE SITTING ROOM. PROMENADE DECK, LOOKING FORWARD. DINING SALOON, LOOKING AFT. MAIN GANGWAY. SALOON PANTRY, LOOKING FORWARD. BERTH IN OWNER'S STATEROOM. OWNER'S GALLEY, LOOKING AFT. OWNER'S PRIVATE SITTING ROOM, LOOKING AFT.

coni operator. Then come the owner's dining saloon and the saloon pantry and galley. The owner's pantry and galley are separate and distinct from those of the crew, but each galley is fitted with cold storage chambers, in which sufficient food may be placed each day for that day's use.

There is a spacious inter-communicating corridor, large lounge vestibule, lavatory and drawing and the owner's stateroom, bath and private sitting room in the after part of the main deckhouse, from which a stairway leads to the lower deck, as well as a private staircase leading from the owner's suite to his lower deck sleeping quarters.

On the lower deck are the crew's berths, officers' sleeping accommodations and sitting room, four large staterooms, two baths, and the doctor's accommodations, all forward. Aft is the owner's stateroom, two rooms for guests, a maid's cabin, work and sitting room and a valet's cabin, service room and bath.

On the hold deck forward is the laundry, with a complete equipment of electrical machinery and spacious chambers for the cold storage of meat, vegetables and fish; and a large dairy and a butcher's room, wherein the meat is cut up for the galley. On this deck are also located the fresh-water tanks and the boatswain's cabin and steward's stores, wine bins and a large baggage room and carpenter shop.

All the plumbing throughout is exposed and the cold-water supply for baths is actually kept cold by an ingenious system of jackets, through which the salt water, drawn inboard for various purposes, circulates.

Heretofore, the supply drawn from fresh-water storage tanks of vessels for bath purposes has been anything but cold, but this arrangement, which has for the first time been installed on any yacht, obviates this minor annoyance.

Iolanda has three independent plants, capable of charging her storage battery, lighting the ship and operating the search light simultaneously. The storage battery can light the entire ship for eight hours consecutively. In addition to the search light and regular lighting system there are, for decorative effect, 3,000 feet of belting, to which are attached red, white and blue incandescent lights, 1,500 in number, which, when she is in gala trim, make her the most brilliantly illuminated yacht in commission.

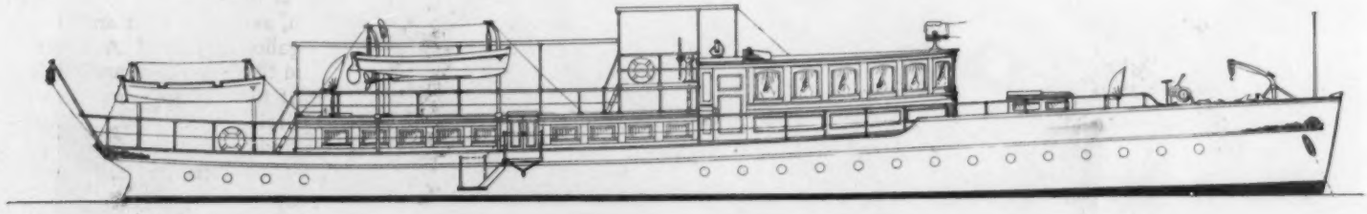
She is also the second largest private yacht in the world and was designed by Cox & King at London and built by Ramage & Ferguson, Ltd., of Leith, Scotland. Every possible convenience is provided, including motor and steam launch tenders and quick-firing guns.

The heating is by steam. A feature which will render her a very comfortable craft for Southern cruising is a ventilating system of 30 motor-driven centrifugal fans, giving a perfect circulation of cool, fresh air throughout all parts of the boat. Fittings throughout are superb, the general style being Queen Anne and early Georgian. There are quarters for 80 persons all told and the crew, ordinarily, will consist of about 70 officers and men. The only American-made article aboard is an enormous steel yacht range in the owner's galley.

Iolanda is notable not only for size and the luxury of her fittings, but for the manner in which every bit of her equipment has been arranged, with a view to producing more than ever will be actually required of it.

For instance, as will be observed in the description of her lighting plant, this is capable of developing about twice the current she would actually require, and therefore, even in case of accident or breakdown, one of her three separate and distinct sets of generating apparatus may be relied on to keep things going.

Using but 50 per cent. of her boiler capacity, she can travel along at a steady speed of 12 miles per hour. She has ample accommodations for a larger crew than is required to navigate her, and her distilling plant has a capacity of evaporating from salt water at least 15 tons of fresh water every 24 hours, and the condenser is capable of converting steam with 40 gallons of pure, fresh water per hour. The yacht is fitted with the Submarine Signal Company's apparatus, which is invaluable in fogs and greatly facilitates navigation.

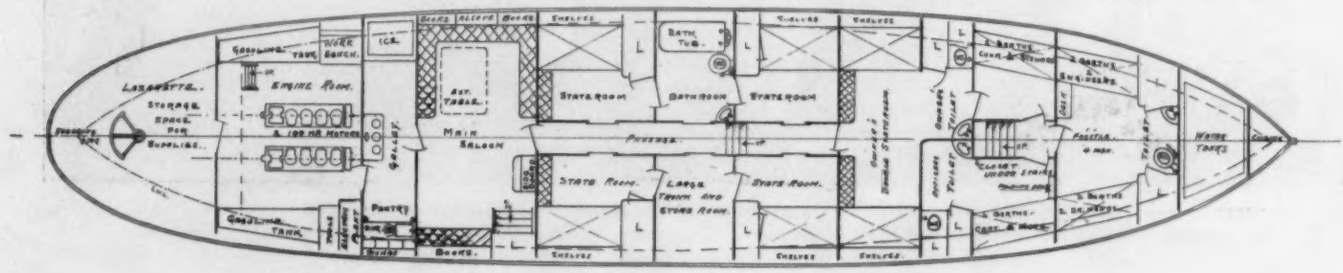


A 98-Foot Shoal-Draft Power Cruiser

THIS shoal-draft power cruiser, designed by J. Murray Watts, has an over-all length of 98 feet; beam, 20 feet 6 inches; and extreme draft of 4 feet.

Officers', cooks', stewards' and owner's quarters are under forward raised deck, giving her plenty of freeboard where most desirable.

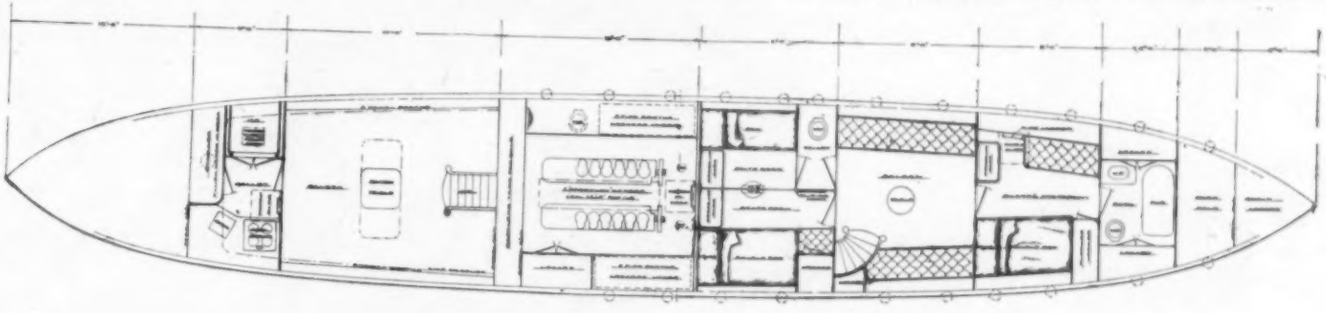
Deck-house smoking room is 20 feet long, with organ, wine locker and a large case for charts. Steering wheel is at forward end and a divan runs around two sides. This house projects slightly into the raised forward deck and is entered by doors at the after end of each side. Aft of smoking room is a raised bridge. The boat deck is formed by the raised trunk.



Along each side of the house is a 4-foot deck. The forward deck is clear of all incumbrances except a companionway leading to the crew quarters.

Aft of the chainlocker are water tanks of 800 gallons capacity, forecastle, with berths for four men; cooks' and stewards' quarters on the port and the officers' quarters on starboard side. Aft of this is the owner's double stateroom extending across the boat. It has two berths, a large clothes locker and two sofas. A door in the after bulkhead of the owner's stateroom leads into a central passageway, on portside of which are two staterooms and bath; on the starboard side are two additional staterooms, with trunk storeroom between them. Each guest stateroom has a large berth and clothes locker, the two after guest-rooms in addition having two fixed settees, adding much to comfort.

Aft of passage is main saloon, extending the full width of the boat. From port side of main saloon steps lead up to the deck. Aft of the main saloon is galley. From the port side of the galley a door leads into the engine room, wherein are stalled two 100-horsepower 4 cylinder 4-cycle motors, which give the boat a speed of 15 miles per hour. The engine room is equipped with work benches, lockers, compartment for the electric lighting plant, and two gasolene tanks of 400 gallons capacity each. A door in the after engine room bulkhead leads into a storage space under after deck. A companionway at port side gives entrance to the engine room from the after deck. Her crew consists of eight men—a captain and mate, cook, steward, two engineers and two deck hands.



An 85-Foot Twin-Screw Cruiser

DESIGNED and built by the Gas Engine & Power Company and Chas. L. Seabury & Co., Consolidated, of Morris Heights, New York City.

The plan shows a yacht 85 feet over all, 75 feet 7 inches on the waterline, 13 feet beam and 4 feet draught, which was designed for a guaranteed speed of fifteen miles per hour.

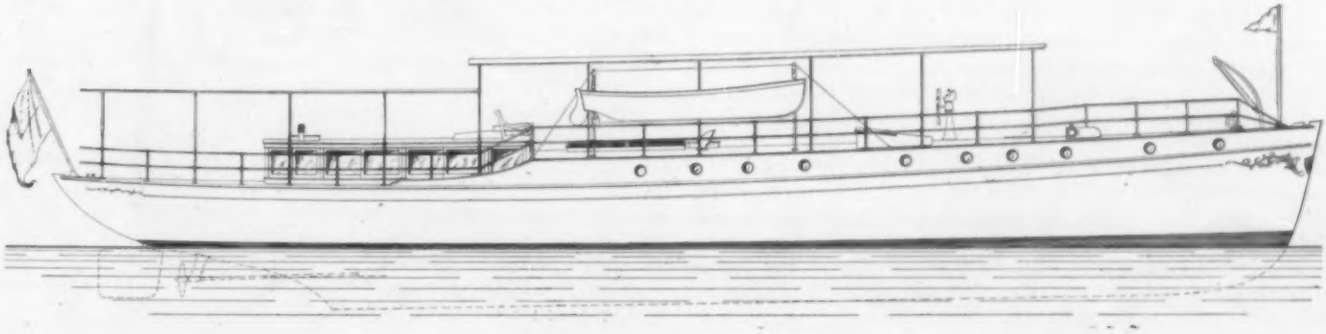
Below deck the boat is certainly well planned for comfort and convenience, the galley being located in the extreme after end. The engine room is located amidship, placing the weight of the motors advantageously for rough-weather service.

In the extreme bow are the chain lockers and storage space. Aft of these is the owner's private bath, in the rear of which, and connected by a door with it, is the owner's stateroom extending across the bow. Forward hold and bathroom are lighted by two portholes each, and the owner's stateroom, which contains a double bed, large clothes locker and dressing case and a comfortable settee, has four port lights. There are two entrances to this apartment, one in the after bulkhead and the other by way of a pipe ladder on the port side leading through the hatch on the deck.

The stateroom is 8 feet in length. The saloon is 9 feet and extends the full width of the boat. On the starboard side a stairway leads through a companionway on the upper deck. Aft of the saloon there are two guest rooms, one on each side. Each stateroom is fitted with a dressing case, and the one on the port side has in addition a settee and a large clothes locker. Aft of these is the engine room, containing two Speedway, 6-cylinder 6½ x 8-foot motors, developing 100 horsepower each. A ladder immediately in front of the engines leads through a deck hatch, and on each side of the room are two pipe berths, with lockers underneath, giving accommodations for a crew of four. On the starboard side is a large clothes locker for the men.

The engine room is 13 feet in length, and between it and the saloon is the gasolene tank of 600 gallons capacity. A large skylight is directly over the engines, and the raised forward deck sets out a trifle aft of the center line of the engine room. The saloon commences at the break in the raised deck, and over it is the raised cabin trunk, with glass windows in the side. The saloon has an extension table and two double berths on each side, so that four people may sleep in this apartment.

Under the after end of the raised trunk is the galley, containing an ice chest, a coal stove, sink and storage space for provisions. A hatch in the roof of the deck house directly over the ice box and a flush hatch in the deck over the provision storage make the handling of ice and food an easy matter. A hatch in the roof of the deck house and a ladder allow the cook to leave or enter the galley without passing through the saloon, should the latter be used for sleeping quarters.



EDITORIAL

Published by the Yachting Publishing Co.: Oswald Garrison Villard, President; Robert M. McBride, secretary and Treasurer.

The Small Boat in 1908

With the yachting season ended, with the "rutting" winds of late September sweeping bleak, watery stretches where once all was life and sunshine and flashing white sails, the time for retrospect is at hand. Looking thus backward, the fact that confronts one most strikingly is the manner in which the season of 1908 was lifted above mediocrity through the efforts of that vast body of sportsmen and able sailors, the small yacht owners. At the beginning of the season attention was called to the anæmic condition of the stock market, and the assertion, not without basis of exact knowledge, was put forth in this magazine that the year of yachting would see a comparatively small representation of boats above 40 feet water line in a great majority of the summer's regattas. We argued therefrom the necessity of titanic efforts on the part of the small-boat man if the season was to have any important place in the annals of the sport in this country. Just how the "little fellows" were going to meet this condition was early apparent in the spring regattas of the Manhasset Bay Yacht Club, of the Larchmont Yacht Club, in the entry list for the Michigan City race on Lake Michigan and in the races on Lake Erie. It is not exaggerating to say that in the clouds of small craft which came up to the lines in these and other regattas, the absence of large boats, as observed in the early races of the New York Yacht Club, was not of sufficient importance to cast anything of a pall upon the early weeks of active racing. Later still came Larchmont Race Week, with its record of over one hundred entries on every one of the five days of racing, and various regattas of Sound clubs, of organizations on Gravesend Bay, and on the waters of the Middle West, where entry lists of less than fifty were regarded as "pretty poor" showings. So it has gone. The Inter-Lake regattas at Put-in-Bay, annually ranking as among the most important small-boat races in this country, were this season attended by record-breaking entries; so was the Northwestern International Regatta on Puget Sound. Wherever one looked, north, east, south or west, there he found the small boat supreme and the sport of racing and cruising flourishing as never before. The New York Yacht Club and the Eastern Yacht Club, the chief exponents of large-boat racing, held their regattas with seventeen, or even less entries, while the Larchmont, Manhasset Bay, Indian Harbor, Seawanhaka clubs and the Corinthian Yacht Club of Marblehead were conducting races in which the lists of boats entered ranged from 126 to 76 in single contests. A yachtsman, an authority on the sport, and one whose scope of knowledge includes a goodly section of the country, said recently that he was of the opinion that more new yachtsmen had been made as a result of the dominance of the small boat this season than in the past four years. If this is true, and there is not the slightest reason for doubting that it is true, the defection of the large yacht this season has operated constructively, and the good effects will be felt in the future. As for the New York Yacht Club, whose smallest racing craft are the one-design 30-footers, we hear that the past season has not been viewed by the leading men of that organization with any degree of equanimity, and that measures that will result in placing the club in the position which it once held, and which it should now hold as the parent of American yachting and the upholder of our nautical honor and tradition, the leading racing organization in this country, are contemplated. And if, as indications lead us to believe, the craft of larger rating will next year hold an important place in the season's regattas, why, so much the better. There is a definite place for the large yacht, and the more of them that are engaged in racing, the better for the sport, but the point that has been established and which will continue to exist with impressive prominence is that the catboat, the "pumpkin seed" racer, the knockabout, the eighteen, twenty-one or thirty-footer, are the backbone of the sport, as constituted in the United States, whatever the section. And that is a good thing for us to know.

Reckless Motor Boat Crew

Motor boat men who have complained of the strictness which has been observed by customs officers in the enforcement of rules in regard to the operation of gasolene boats have not, we fear, been actuated by a desire to uphold the best interests of the sport. Of course, men who run power yachts are not in the aggregate more reckless than any other class of men. We know of motor boat owners who would no more think of venturing ten feet from land without a full equipment of lights, life preservers, fog horns, whistles and the like, than they would think of riding on the cow catcher of a locomotive; yet on the other hand we are sorry to say that others of our acquaintance have made it their boast that they have gone careening over the waters "from fog to fog by luck or log," or through the night without any sign of light. There is a thrill in this, they have explained, which makes an irresistible appeal. These are the men to whom accidents occur, generally speaking; these are the men whose collisions and not infrequent drownings deter many a person from purchasing a motor boat and entering enthusiastically as a factor in the sport of power boat racing or cruising. A correspondent sends us the details of the most recent fatal accident attending the reckless handling of a motor boat, the collision in Toledo Harbor between the steamboat Greyhound and the motor launch Westwind. The steamboat, according to our correspondent, on the evening of July 30 was passing up the dredged channel, which is very wide and marked by range lights and buoys and in no way intricate or difficult to navigate. The steamer was in charge of her captain, Thomas Meikleham, who saw about 500 to 800 feet ahead and well on his starboard bow a dark object exhibiting no light to indicate its character or in what direction it might be moving, if moving at all, and which within a few seconds proved to be a motor boat approaching at full speed and swinging rapidly under a port helm. The yacht continued swinging to starboard and struck the steamer at full speed, end on, just forward of the starboard wheel. Just at this juncture the steamer's engines were stopped from backing and the yacht disappeared, smashed into fragments. The operator of the yacht, who was also the owner, was drowned. No licensed person in charge of this boat, no lights shown; no whistle signal sounded; no life preservers aboard. May this accident prove an object lesson which will be heeded.

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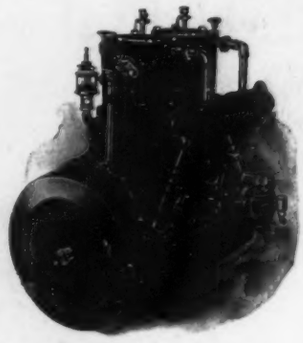

A Compact Cooking Kit There are many times on a cruise when one does not wish to start up the galley stove, and yet a bit of something hot would go uncommonly good.

One of the neatest arrangements which would fit just such a case as this is the Camp Cooker of the Alcohol Utilities Company, of 158 West Twenty-third Street, New York City. It consists of a cook pail, a frying-pan and a stove. Both of these utensils have folding metal handles. The pail sets inside the frying-pan, and a stove, small but very powerful, vaporizes the alcohol, thereby eliminating all wick-burning troubles, and furnishes a constant and intensely hot flame. The pail also accommodates a four-hole egg boiler and a coffee or tea ball, which may be suspended from the cover of the pail.

Component parts of Compact Camping Kit. Cooking pail, egg holder, coffee or tea ball, stove for burning denatured alcohol, and fry pan.

The Compact Cooking Kit packed.

It is very light, compact, and weighs but a very few ounces. If one wants coffee and eggs in a hurry with this outfit, he can get it in shape very readily by the following scheme, which one of YACHTING's staff tried on a recent outing trip: The coffee ball was half-filled with coffee and suspended in the pail of cold water. When this was brought to a boil the coffee was made. Then the coffee ball was removed and the egg boiler dropped in the coffee with four eggs in it, and the coffee continued to boil for three minutes; now the eggs were done. Removing the coffee ball prevented all danger of tannin from the coffee by boiling; the eggs were just as good as if boiled in water, and the time which would have been necessary to have boiled the eggs separately was thereby saved.

A New "Herz" Type of High-Efficiency Magneto Designers of the "Herz" high-tension magneto have worked very closely to a theoretical ideal and studied the conditions under which the highest possible electrical efficiency might be obtained. The laws of magnetism and induced currents have been so applied in construction that the practical result fully justifies the use of the term "high efficiency." The sparking power at the slowest speed of rotation is remarkable, there is also a very marked saving in weight, and the whole machine is reduced to a minimum of size, and space is therefore economized.

A glance at the diagram of the complete machine shows at once that the construction does not follow conventional practice. The "horseshoe" or U-shaped field magnets are absent, and the cylindrical, smooth, all-enclosed field system is seen instead. Herein lies one of its principal features. The magnet system is in reality composed of several flat steel rings clamped together, and with the polar space or armature "tunnel" cut in them. The surfaces of the rings are ground with extreme accuracy, and so, when clamped together, perfect magnetic contact is obtained. Another striking feature is that the usual independent pole pieces are entirely dispensed with. These pole pieces are the tunnel-shaped, soft iron extensions to which the field magnets are usually bolted. This method of construction entails joints, which means a break in the magnetic circuit. Magnetic theory teaches that a jointed magnet system is not so good as a one-piece system.

In the "Herz" magneto this ideal is attained quite simply, the armature space being bored out of the rings. Furthermore, sharp angles on the magnet system cause leakage of "lines of force." In this particular machine there is very little leakage. The net result is that a magnetic field of highest possible intensity is obtained across the polar space of a very light and compact magnet system, as shown in Fig. 1. In fact, a piece of iron placed in the polar space is attracted and gripped with such force that, taking the size of the magnets into consideration, a very strong effort is required to pull it away. To utilize this "field" to the fullest extent the armature, Fig. 2, which is of conventional design, or shuttle-shaped, is turned and mounted with such accuracy that it can be rotated within one-tenth of a millometer of the pole with perfect freedom. The bearings are of the ball type, the balls being held in cages, which also serve to carry enough vaseline for lubrication for many months' use. The ball cage is detachable from the outer ball race.

Bearings are visible at the ends of the armature spindle. Windings of the armature consist of a primary and secondary coil, specially insulated from each other. The condenser is contained in a deep, circular recess, or brass box, at one end of the armature. The contact make-and-break device, Fig. 3, is arranged as a complete, detachable unit, fitted to the armature shaft by means of a small keyway and feather, contact with one end of the primary winding of the armature being

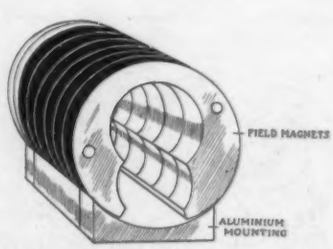

Fig. 1.

Showing how the flat steel rings are clamped together.

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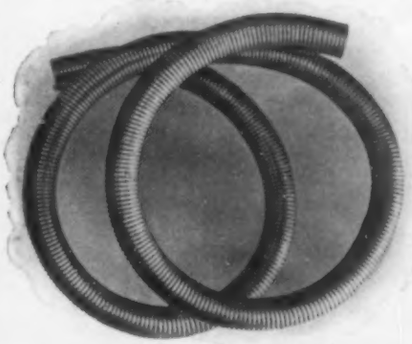

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THE NEW YORK FLEXIBLE METALLIC HOSE AND TUBING CO.

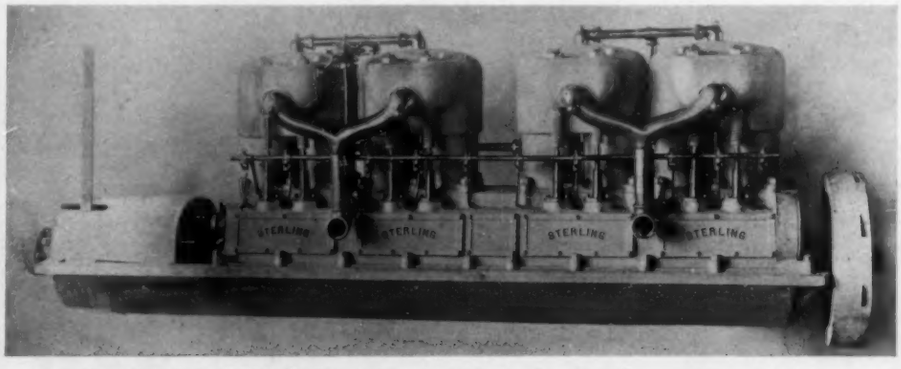
173-177 Lafayette Street, New York

The Courier, owned by W. J. Conners, of Buffalo, and equipped with an eight-cylinder 5½ x 6 Sterling engine, making a trifle better than 27 miles, at Buffalo Launch Club race on August 2d.

made by a small carbon brush fitted into the contact disc, and pressing against a ring alongside the front ball race on the armature. The contact device could hardly be simpler in construction; as, practically, there are but three parts, a curved spring, having a platinum contact at one end; a small steel piece or black set slantwise, carrying an adjustable platinum contact, and a small, hard fiber roller, loosely centered on a pin. The roller is so set that if it is given a slight push at the edge it must tend to move up the inclined plane formed by the steel piece just referred to, and in doing so it pushes against the end of the spring and separates the contacts. The contact maker turns round bodily with the armature, and, in rotating, the fiber roller strikes against two steel projections—almost like fixed cam surfaces—held in a case, Fig. 4, and thus the "break" occurs at the point of maximum induction twice per revolution, and the sparking current is induced in the secondary winding. The electrical circuit is of the simplest plan possible; there are no exterior connections. For cutting off the spark when desired a terminal is provided, as shown, on the contact-maker case. This produces a connection by means of a spring, which presses on the head of a steel screw in connection with the insulated end of the primary winding, which can be short circuited at will. The contact-maker case is capable of about 30 degrees of angular movement for advancing and retarding the spark. A small projecting arm is provided on the case for the purpose of attaching the advance lever.

The high-tension end of the armature has mounted upon it a deeply recessed V-insulating collar with a metallic sector within it at the right-hand end of the armature, but not visible in the sketch. Upon this sector, press small carbon brushes for drawing off the high-tension current. The machine illustrated is a two-cylinder pattern, and there are visible, Fig. 5, two high-tension terminals set at 90 degrees. In the four-cylinder pattern a high-tension distributor is combined. To obtain the two sparks, the high-tension contact piece, or segment, referred to previously as fitted in the insulating collar, does not go quite half-way round, and thus makes alternate contact with the two carbon brushes set at 90 degrees, sending a spark to the respective cylinders. The safety gap spark is obtained between the high-voltage sector and the armature.

If the spark produced exceeds ⅜ inch it jumps across the insulating collar to the armature. The casing of the machine is aluminum, forming a perfectly dust-tight, smooth and well-finished covering. An idea of the efficiency and simplicity of the machine may be formed from the fact that it was taken to pieces for making illustrations of the various parts, and then put together again with only a screwdriver, improvised from the blade of a penknife. A piece of wire was fixed on the high-tension terminals and adjusted to five-sixteenths of an inch from the casing. Twisting the armature around with the fingers sufficed to make the machine spark vigorously. The single-cylinder magneto weighs but 4½ pounds, and is remarkably compact. The four-cylinder machine weighs 7 pounds. Every part is made on the interchangeable system and kept in stock. The new Herz magneto is made in the Herz European factory (Vienna), and sold in this country by Herz & Co., 203 Lafayette Street, New York.



The eight-cylinder 100-hp. Sterling engine with which the Courier made over 27.3 miles per hour.

How the Courier Scored—Another Sterling Triumph

At the Buffalo Launch Club's regatta, held on the Niagara River, August 1, Courier, owned by W. J. Conners, of Buffalo, and equipped with an eight-cylinder 100-hp. Sterling engine, won the speed race over the Bedell House course and made better than 27.3 miles per hour.

While the interest in the race centered in Courier and H. S. (owned by Mr. Spillman), there were five other boats in the race, and the 5-mile course was covered twice. From the start Courier steadily overhauled the boats which had started ahead of her. H. S. held her place well during the first half, and it was not until the last quarter that Courier shook her off and shot over the line, winning by eight seconds.

Expert handicappers declare that the winning of this race places Courier in the championship class of motor boats of the country. Her speed demonstrated that she was the fastest boat on the river, and experts say she would race well with any boat in the country with the handicap which her measurements and power entitles her to.

Courier was designed and built by the Sterling Engine Company, and her dimensions are as follows: Length over all, 35 feet; length water-

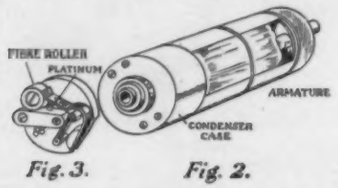


Fig. 3. *Fig. 2.*

Detachable make-and-break contact and shuttle-shaped armature.

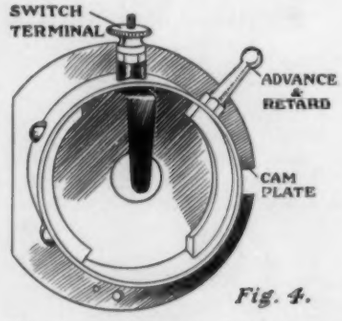


Fig. 4.

Showing how the cam-like steel projections are held in case.

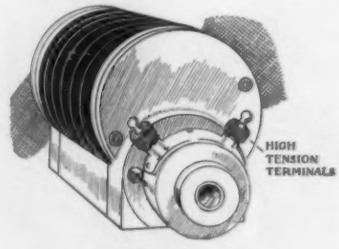


Fig. 5.

Two-cylinder pattern, showing the high-tension terminals set at 90 degrees angle.

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line, 34 feet 9 inches; beam, extreme, 4 feet 5¼ inches; beam, waterline, 4 feet 2 inches; draft, 9½ inches.

Her engine is an eight-cylinder, 100-hp. Sterling of the regular model B type, which is built especially for speed; bore, 5½ inches; stroke, 6 inches. All working parts are exceptionally large, which gives the engine remarkable endurance and power.

The Sterling Engine Company, of Buffalo, N. Y., will be glad to furnish interested parties full particulars regarding their engines, and a copy of their new 48-page catalogue will be mailed on request.

The boat whose speed was increased by installation of a Michigan wheel.

How a Launch Owner Cut Down His Running Time by 30 Per Cent

It is not only the racing man who realizes the advantage of anything which will take several minutes off of his running time. The launch owner who uses his craft for ferry service is in a position to thoroughly appreciate any device which tends to bring both ends of his daily journeys closer together.

Just what properly proportioned propeller wheels can accomplish in this direction will be seen from the following communication, received by the Michigan Wheel Company, of Grand Rapids, Mich.:

BLANCHET & FITZPATRICK.

NORTH BAY, ONT., Aug. 24, 1908.

Michigan Wheel Company, Grand Rapids, Mich.

GENTLEMEN:—I must congratulate you on the wheel you shipped me. It turns my yacht 2 to 3 miles per hour faster than the former ones I had. I consider this a phenomenal record, as I tried several makes of wheels, and have often heard of the remarkable speed the Michigan wheels have made, but did not realize that they would increase the speed of my boat so great until I had tried.

The distance on water to my summer cottage is 5 miles, and I used to do it in 40 minutes with my old wheels, this year with your wheels I do it in 27 to 28 minutes.

The Michigan wheels for me hereafter, they are the best yet produced. Enclosed find photograph of my boat.

Very truly yours,

(Signed) BLANCHET & FITZPATRICK.

John Blanchet.

As will be seen by the illustration, the launch is one of a type from which one does not expect as great sensitiveness to a change of wheels as would be the case with a speed hull. Therefore, the showing made by the new wheel is all the more creditable.

Some Novel Features of the Improved Strelinger Gasolene Motors

Among the special features which have so rapidly increased the popularity of the engines manufactured by the Strelinger Marine Engine Company, of Detroit Mich., may be mentioned:

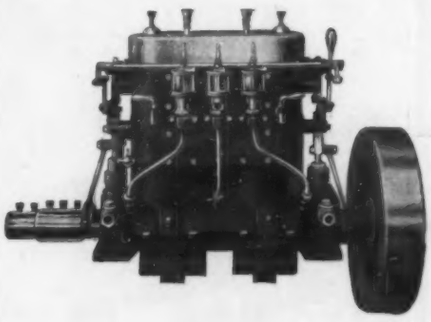
Figure 1.—Base of Strelinger engine showing oil compartments which make possible the "continuous lubricating performance."

The Oiling System.—Fig. 1 shows the base of their four-cylinder engine, the oil being fed into compartment *A;* the revolutions of the cranks throw it against side *b;* the trough *C* conveys it to the next compartment forward. When the oil gets to the front it flows down through opening *D* into channel *E,* and thence back to compartment *A.* This "continuance performance" keeps the oil at practically a level. It does not have to be led into *A* necessarily, as the same results are obtained by feeding it into any one of the four compartments. It would seem that no simpler method could be devised.

The Connecting Rod.—In Fig. 2 is shown the style of connecting rod used on Strelinger engines of 5 hp. and upwards. The main part is made from a single piece of steel, and is an especially fine example of intricate and difficult drop forging. The lower part is also a drop forging. This connecting rod is strong and light; any part may be adjusted without taking it from the engine. The 3-hp. connecting rod is a drop forging of similar section, but without the top adjustment. An especially attractive feature is the method of changing the time of adjustment and relieving compression in starting the engine. This is accomplished by the movement of one lever operating on the cam shaft. The cylinder relief is through the exhaust valve; thus, when the engine is on late ignition the cylinder relief is open, when on early ignition it is closed, and the full power of the engine is obtained. When one lever is used for an engine of any number of cylinders the results are effectiveness, durability and simplicity. On the larger engines the crank shafts are hand-forged.

Figure 2.—Drop-forged connecting rod used on Strelinger engine.

Fig. 3 shows the other internal working parts of the engine, the valve construction for inlet and exhaust being the same on both the 3 hp. and the larger sizes. The inlet valves are made from solid steel drop forgings. This firm has just made a shipment of two of their 10-hp. engines to Honduras, Central America, where they will be used to drive two paddle-wheels on a fruit barge. The wheels are 54 inches in length and 87 inches in diameter, the barge itself being 100 feet long by 18 feet beam and planked with 3-inch oak. All of the



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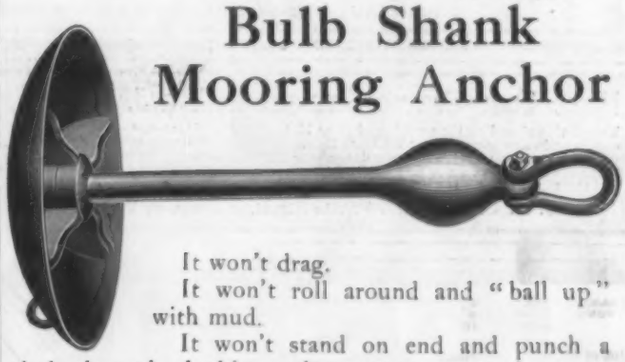

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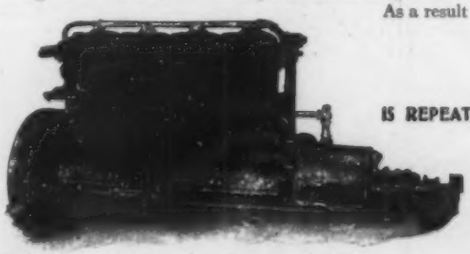

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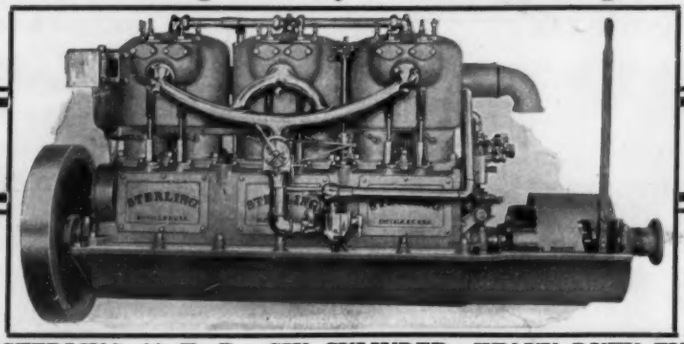

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sprocket wheels and special machinery ready for installing engines were furnished by the Strelinger Marine Engine Company, the entire shipment weighing about 6,000 pounds.

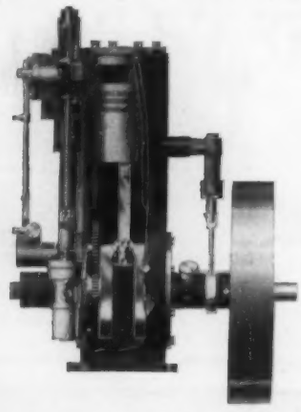

Figure 8.—Sectional view of cylinder of Strelinger engine showing working parts and valve construction.

The Inter-Lake Regatta

(Continued from page 211.)

went flat and the yachts had to be towed home. The day was ideal for the power boat races, however, and they attracted the greatest gallery of the meet. The winners were Red Feather, in the cruiser class, Coot in the open launch class, and Red Devil in the speed class. Lemon won the 10-mile race in the speed class and Red Devil came in third. In the 20-mile bout, however, Lemon took only sixth place, so the championship went to O. P. De Mars, fleet captain of the Cleveland Yacht Club. Winton had another accident and Scripps was disqualified for exceeding the speed limit given her in the first day's race. She made over 24 miles per hour, the fastest time of the meet. Stuart was also disqualified for the same reason.

On Thursday the races postponed from the day before were sailed in a fine 12-mile breeze from the east. All the 21-footers, except Otsiketa, tied in balance reefs. Spite was disabled just as the preparatory gun was fired, by parting the pennant of her throat halyard. It took about ten minutes to repair the damage, but the plucky craft finally got into the race and beat Toledo in spite of her ill luck. After splitting tacks, Cleveland and Spray left Otsiketa in the rear and fought out a great match. Spray was finally successful in getting the blanket over Cleveland, however, and kept it there, finishing 30 seconds ahead.

The results in Classes A and B were the same as those of the first races, Zoraya winning in the former and Crusader in the latter. It was found, however, that Shark, Aggie and Zelma were tied for second money in Class A, so they were sent out in the afternoon to settle it. Zelma won, Aggie was second and Shark third.

In the 18-foot class the start was a beautiful thing to see. Hayseed, Fudge and Yankee crossed together, with Fannette trailing closely. Bonitwo was about a minute late. Hayseed led at the first mark, Yankee was second and Fannette third. Bonitwo went into third place on the second leg, and overhauled and passed Yankee at the second mark, finishing in second place.

On the first two legs of the course the other 16-footers had the best of Hoorah, but on the windward leg the Cleveland boat passed through the bunch and was fast overhauling Sella II., the Toledo centerboard craft, when the line was

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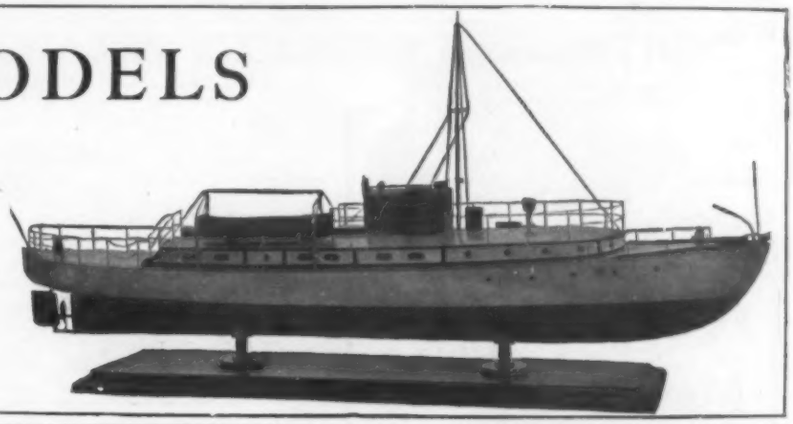

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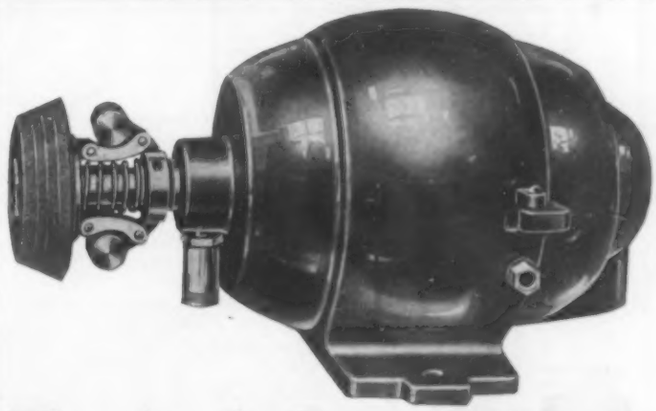

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This little dynamo is not an experiment. Leading engine builders don't risk their reputation by recommending and installing "experiments," nor do you find thousands of experienced motor boat owners sticking to "experiments" season after season.

This successful ignition dynamo has "made good" because it supplies that all-important missing link—a *sure* ignition system. Makes battery current strong and certain, instead of weak and uncertain, as you mostly find it, where the Apple Battery Charger is not used.

It furnishes enough extra current for three electric lights.

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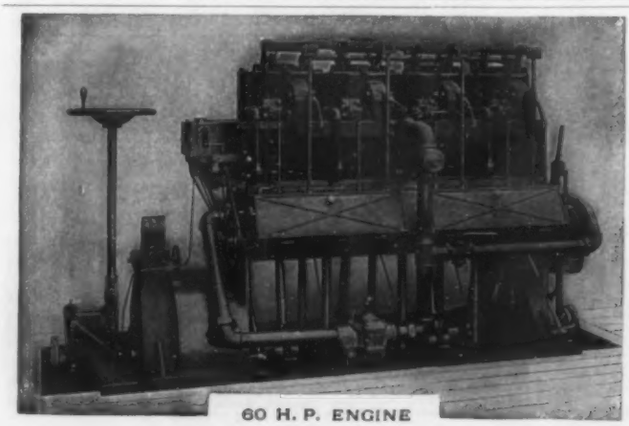

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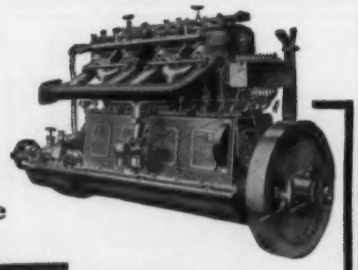

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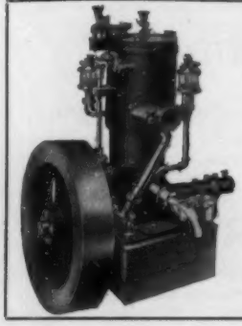

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crossed. Shake finished a minute after Hoorah and Nancy was fourth.

In the veteran cruiser race Tomahoc, of Buffalo, won over Enright, of Toledo, in a race that was full of interest.

Friday, the last day of the regatta, opened in a rousing fashion. About 5 o'clock a fierce squall ripped things up in a lively way about the islands, causing many of the boats to drag their anchors and necessitating hasty and effective work on the part of all hands to prevent great damage. The winning 16-footer, Sella II., was capsized, but was righted in time to get into the morning's race. When the time came for the start the wind had swung from westward, from which the early morning squall had come, to northeast, and was blowing about 20 miles per hour. All but the 18-footers went out reefed down from one to three points, but the knockabouts carried full sail with one exception.

In the 21-foot class, Cleveland had the start for the fourth time, giving her a clean slate for the entire week. Spray was about on even terms however, while Otsiketa and Spite crossed to leeward, and sailed their own courses without interference. The first leg was a broad reach, and Otsiketa rounded first, closely followed by Spite. Spray jibed around the mark, followed closely by Cleveland. With spinnakers on the second leg Cleveland passed both Spray and Spite, and was in second place when the third leg was begun. As Spite rounded onto the third leg her bobstay parted, and she had to be towed in. Otsiketa gained some over Cleveland on the beat home, and the latter left Spray far in the rear. This made a different winner for each event of this class. Cleveland, by her consistent work in finishing second in each race, except in the first, which she won, put her in first place for the series.

In the 18-foot class Hayseed won. This made the fourth race for Hayseed, and gave her the best percentage in any of the restricted classes.

In the 16-foot class, Sella forced Hoorah in stays during the splitting of tacks near the line, and finished 11 seconds ahead.

Joseph Grasser, of Toledo, won the catboat race with his Lucille.

The final results in all of the classes were as follows:

Yacht.	Monday.	Tuesday.	Thursday.	Friday.	Points.	Cash Prize.
21-foot Class.						
Cleveland (C.Y.C.)	100	80	80	75	335	$215
Spray (C.A.A.)	80	60	100	50	290	130
Spite (C.C.)	60	100	40	20	220	85
Otsiketa (C.C.)	20	40	60	100	220	...
Toledo (T.Y.C.)	40	20	20	...	80	...
Class A, Universal.						
Zoraya (R.C.Y.C.)	100	100	100	...	300	150
Shark (T.Y.C.)	80	40	60	33½	213½	...
Zelma (R.C.Y.C.)	60	80	40	100	280	90
Aggie (R.C.Y.C.)	40	60	80	65½	246½	60
Pirate (D.B.C.Y.)	20	20	20	...	60	...
Class B, Universal.						
Crusader (R.C.Y.C.)	100	100	100	...	300	150
Eleanor (R.C.Y.C.)	90	85.7	83.8	...	269.5	90
Elsie (T.Y.C.)	80	71.4	66.7	...	228.1	60
Mildred (S.D.Y.C.)	50	57.1	16.7	...	123.8	...
Rooster (L.Y.C.)	70	42.9	...	...	112.9	...
Gum Shoe (T.Y.C.)	30	28.6	50	...	108.6	...
Tattoo (S.Y.S.)	60	...	...	...	60	...
Naomi (R.C.Y.C.)	40	14.3	...	...	54.3	...
Beener (T.Y.C.)	20	...	33.3	...	55.3	...
Agawa (D.C.C.)	10	...	...	...	10	...
Kemah (M.R.Y.C.)	...	...	...	...	...	...
Bethlen (D.M.B.C.)	...	...	...	...	...	...
18-foot Class.						
Hayseed (L.Y.C.)	100	100	100	100	400	125
Bonitwo (S.Y.C.)	60	60	80	80	280	75
Fudge (L.Y.C.)	80	80	40	20	220	50
Yankee (L.Y.C.)	40	20	60	40	160	...
Fannette (L.Y.C.)	20	40	20	60	140	...
16-foot Class.						
Sella II. (T.Y.C.)	85.7	100	100	100	385.7	63
Hoorah (L.Y.C.)	71.4	60	80	80	291.4	37
Shake (D.C.C.)	28.6	80	66.7	60	235.3	25
Nancy (T.Y.C.)	100	20	50	40	210	...
Gamble (D.C.C.)	42.9	40	33.3	20	136.2	...
Oriole (L.Y.C.)	57.1	...	16.7	...	73.8	...
Irene	14.3	...	...	...	14.3	...
Class D, Veteran Cruisers.						
Enright (T.Y.C.)	100	85.7	...	...	185.7	75
Juanita (T.Y.C.)	88.9	71.4	...	...	160.3	45
Tomahoc (B.Y.C.)	44.4	100	...	...	144.4	30

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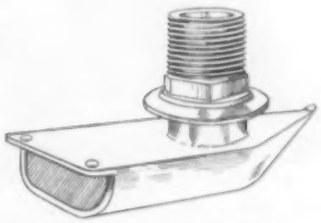

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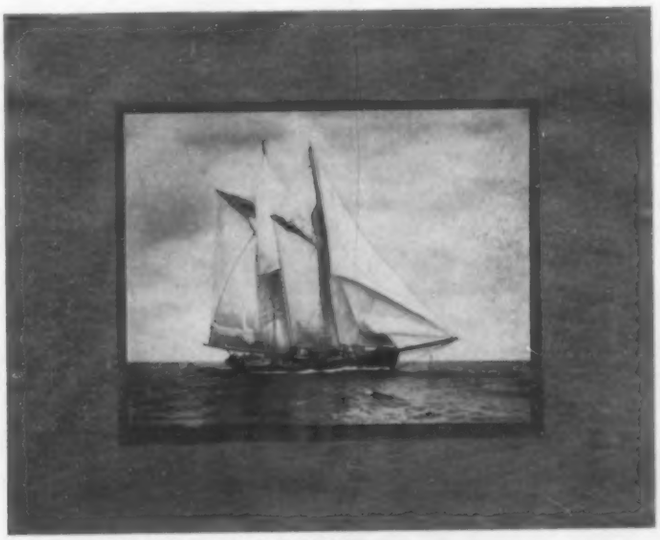

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YACHT.	Club.	Skipper.	Finish.	Elapsed Time.
Lucille	T. Y. C.	Joe Glasser	10.03.25	1.08.25
D. Y. C., No. 11	D. Y. C.	F. Schmidt	10.04.38	1.09.38
Red One	D. Y. C.	M. C. Reilly	10.08.12	1.13.12
Farrell	M. R. Y. C.	John Rohr	10.08.44	1.13.44
T. Y. C., No. 4	T. Y. C.	F. Frey	10.08.45	1.13.45
D. Y. C., No. 2	D. Y. C.	Casper Schmidt	10.09.03	1.14.03
Number Ten	T. Y. C.	P. Lang	10.09.43	1.14.43
Three Friends	M. R. Y. C.	J. J. Baird	10.11.31	1.16.33
T. Y. C., No. 2	T. Y. C.	J. Willis	10.12.09	1.17.09
T. Y. C., No. 5	T. Y. C.	E. Batchelor	10.12.54	1.17.54
Marjory	T. Y. C.	W. J. Cramer	10.13.21	1.18.31

Trans-Pacific Race

(Continued from page 203.)

company on lee beam, distant about 7 miles. Carried all plain sail throughout the day. Cloudy and overcast; N. E. swell.

July 8, noon.—Latitude, 28 degrees 34 minutes north; longitude 124 degrees 2 minutes west. Course, S. 56 W. Distance, 157 miles. Carrying all possible sail. Wind W. to W. N. W. throughout the day. Misty and squally.

July 9, noon.—Latitude, 27 degrees north; longitude, 127 degrees west. Course, S. 59 W. Distance, 183 miles. First N. N. W. to N. breeze. Carrying all possible sail. Cloudy and overcast weather; moderate sea.

July 10, noon.—Latitude, 26 degrees 31 minutes north; longitude, 130 degrees 30 minutes west. Course, S. 79 W. Distance, 185 miles. Cloudy and overcast; unsteady N. to N. E. wind; 6.30 P. M. set the spinnaker. N. E. swell running throughout the day.

July 11, noon.—Latitude, 25 degrees 56 minutes north; longitude, 133 degrees 31 minutes west. Course, S. 68 W. Distance, 175 miles. Unsteady N. N. E. to N. E. breeze. Misty and cloudy weather. N. E. swell. Everything set; all sail carried

July 22, noon.—Latitude, 24 degrees 42 minutes north; longitude, 136 degrees 20 minutes west. Course, S. 73 W. Distance, 163 miles. Moderate, unsteady N. N. E. to N. E. winds. N. E. swell; cloudy weather; passing swells.

July 13, noon.—Latitude, 24 degrees 10 minutes north; longitude, 139 degrees 39 minutes west. Course, S. 81 W. Distance, 191 miles. N. N. E. to E. N. E. breeze; light. Overcast and cloudy. Carrying all sails.

July 14, noon.—Latitude, 23 degrees 41 minutes north; longitude, 142 degrees 51 minutes west. Course, S. 80 W. Distance, 180 miles. Moderate N. E. to E. N. E. breeze; fair weather; later squally; rough sea. All sails carried.

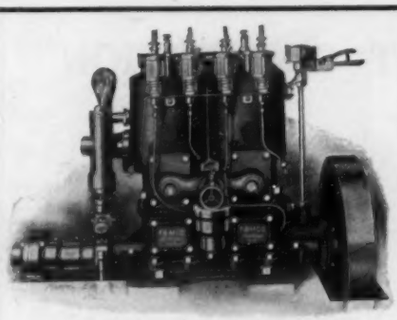
July 15, noon.—Latitude, 23 degrees 13 minutes north; longitude, 145 degrees 59 minutes west. Course, S. 81 W. Distance, 175 miles. Fresh E. N. E. to E. breeze; squally weather; cross seas.

July 16, noon.—Latitude, 22 degrees 20 minutes north; longitude, 149 degrees 4 minutes west. Course, S. 68 W. Distance, 194 miles. Fresh E. N. E. winds; squally weather; heavy cross seas.

July 17, noon.—Latitude, 22 degrees 55 minutes north; longitude, 152 degrees 3 minutes west. Course, S. 62 W. Distance, 187 miles. Fresh E. N. E. winds and squally weather; rough cross seas; latter part, moderate weather. Carrying all possible sail.

July 18, noon.—Latitude, 20 degrees 56 minutes north; longitude, 155 degrees 17 minutes west. Course, S. 89 W. Distance, 186 miles. Light breeze, with heavy squalls. Off Maui; heavy seas.

July 19.—Passed Diamond Head at 9.38.06 A. M.; off 1 mile. Distance, 144 miles. Light breeze and heavy squalls during the night. Carrying all possible sail.



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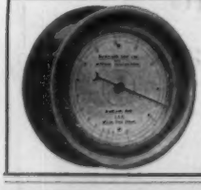

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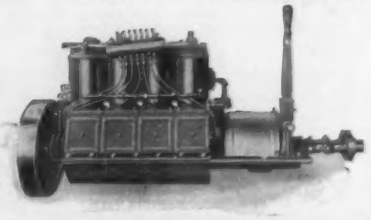

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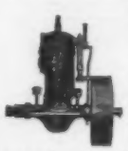

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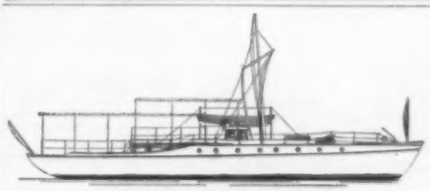

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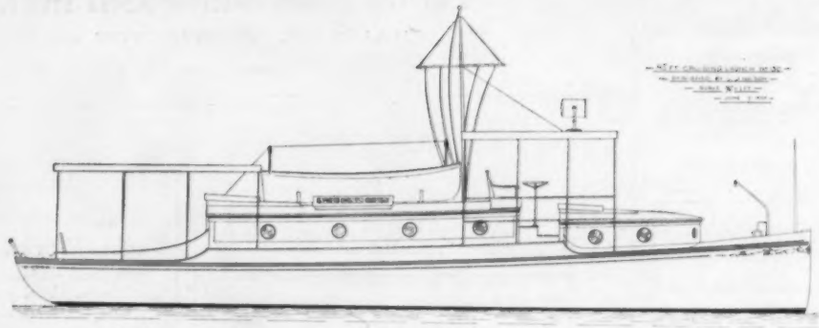
The Mullins "1909" Special is a magnificent model built of puncture proof plates of **Pressed Steel.** Has **Air Chambers** like a **Life-Boat.** Guaranteed not to leak—waterlog—dry out—warp and never has to be calked—needs no boat-house—never out of repair. All orders filled the day they are received. ENGINE—Ferro Reversible 1½-H.P. Engine equipped with all the 1908 improvements, including Mullins Silent Underwater Exhaust. **SEND FOR HANDSOME FOUR-COLOR CIRCULAR.**

W. H. MULLINS COMPANY, 150 Franklin Street, SALEM, OHIO

SEP 29 1908

A NILSON 45 FOOTER



Anything remarkable about it?

Just look her over and see.

She is without doubt the most complete and seaworthy craft of her size afloat.

She is a perfect floating home for a family of seven or eight.

If you are interested in a boat of this type—or any other pleasure type—write us, for we have something to tell you.

We have devoted twenty-five years of hard work to acquiring the knowledge of pleasure craft and the result of our labor and study has been the development of several distinct types which are very little short of absolute perfection for the uses to which they will be put.

Correspondence invited with those desiring the highest grade of construction.

THE NILSON YACHT BLDG. CO., Baltimore, Md.

BUILDING AND REPAIRS TO HULL, MACHINERY AND RIGGING. MARINE RAILWAYS AND WINTER STORAGE

Visiting Yachts Steer West from Fort McHenry for One Mile. SUPPLIES OF ALL KINDS. No Catalogues.

ELECTRIC SEARCHLIGHTS

For Launches, Yachts and all classes of marine craft

Write for Catalog

Electric Light Plants Direct Connected to Gasoline Engines

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CLOTHING LOCKERS

Necessary to the pleasure of club life—to say nothing of ending locker maintenance expense. Cannot burn; insure privacy; perfectly ventilated; absolutely sanitary. Not affected by dampness. Unit principle. Finish is enamel, prevented from flaking off by baking at high temperature. Olive green, or other colors to match interior woodwork.

Get Booklet YG, showing types of ALLSTEEL Lockers. State style, size, whole number, number to a row, for information on special lockers.

THE GENERAL FIREPROOFING COMPANY

YOUNGSTOWN, OHIO

Edson Steering Gears

have stood every test for nearly fifty years.

Established 1859.

EDSON MANUFACTURING CO.

260 Atlantic Ave., Boston, Mass.

An Unusual Offer

This Handsome Embossed

Brass Lamp

and a month's supply of

PYRO DENATURED ALCOHOL

for $5.75

This outfit consists of embossed brass Lamp with 45 candle power Pyro Alcohol burner. Two double web mantles. Jena imported heatproof chimney. Tripod. Automatic pourer and two one-gallon cans Pyro Denatured Alcohol. *Remember, we pay all charges.*

This is an offer that everyone, who has the interests of the home at heart, should take advantage of.

It is made for the purpose of further introducing PYRO Denatured Alcohol, the wonderful new liquid fuel for lighting, cooking and heating.

Thousands of dealers are now selling PYRO Denatured Alcohol.

The Lamp included in this offer is an *exceptional value*. It is the *newest type* of Table Lamp and has all the *latest improvements*.

It is sent complete with two double web mantles, tripod, Jena heatproof chimney and the new automatic pourer.

So simple is this lamp that a child can operate it. Furthermore, it is *absolutely safe*.

With each lamp we furnish enough PYRO Denatured Alcohol *to last a month*, if lighted two and one-half hours a night.

PYRO Denatured Alcohol is simply ordinary alcohol made *unfit to drink*.

Because of its *unquestioned superiority* as a fuel Congress recently removed the tax of $2.08 per gallon.

In Germany last year *over sixty million* gallons of Denatured Alcohol were consumed. It is the illuminant in the Emperor's palace.

Everyone who has used Denatured Alcohol will tell you that this wonderful fuel is more like *real sunlight* than an artificial illuminant.

It furnishes a *pure, steady* light as *clear, white* and *safe as sunlight*. No fuel consumes *so little oxygen* in the air of a room. No light is *so easy on the eyes* for reading, writing or sewing.

Don't for an instant confuse PYRO Denatured Alcohol with kerosene because it is burned in a lamp.

PYRO Denatured Alcohol not only gives a light *four times* as brilliant as kerosene, but it is absolutely free from all the odor, dirt and trouble of kerosene lamps.

Wouldn't it be a relief to you to use a fuel that requires *no attention*—no chimneys to clean and polish, no wicks to trim, no bowls to fill with ill smelling, clothes staining kerosene?

Wouldn't you and your family appreciate the *absence* of soot, smell and danger?

Wouldn t it be a comfort and pleasure to have your home lighted with a bright *sunlight-like* radiance, instead of a feeble, yellow, malodorous, air contaminating kerosene lamp?

The Electrical Testing Laboratories of New York is the recognized authority in the United States on lighting apparatus. In a recent report it clearly establishes the superior efficiency and economy of Denatured Alcohol over kerosene.

THESE ARE THE STATISTICS:

Description	One Gallon will last	Average C. P.	C. P. Hrs.
Alcohol Burner	38 hrs. 30 min.	45.2	1740
Kerosene Lamp	32 hrs. 42 min.	14.8	484

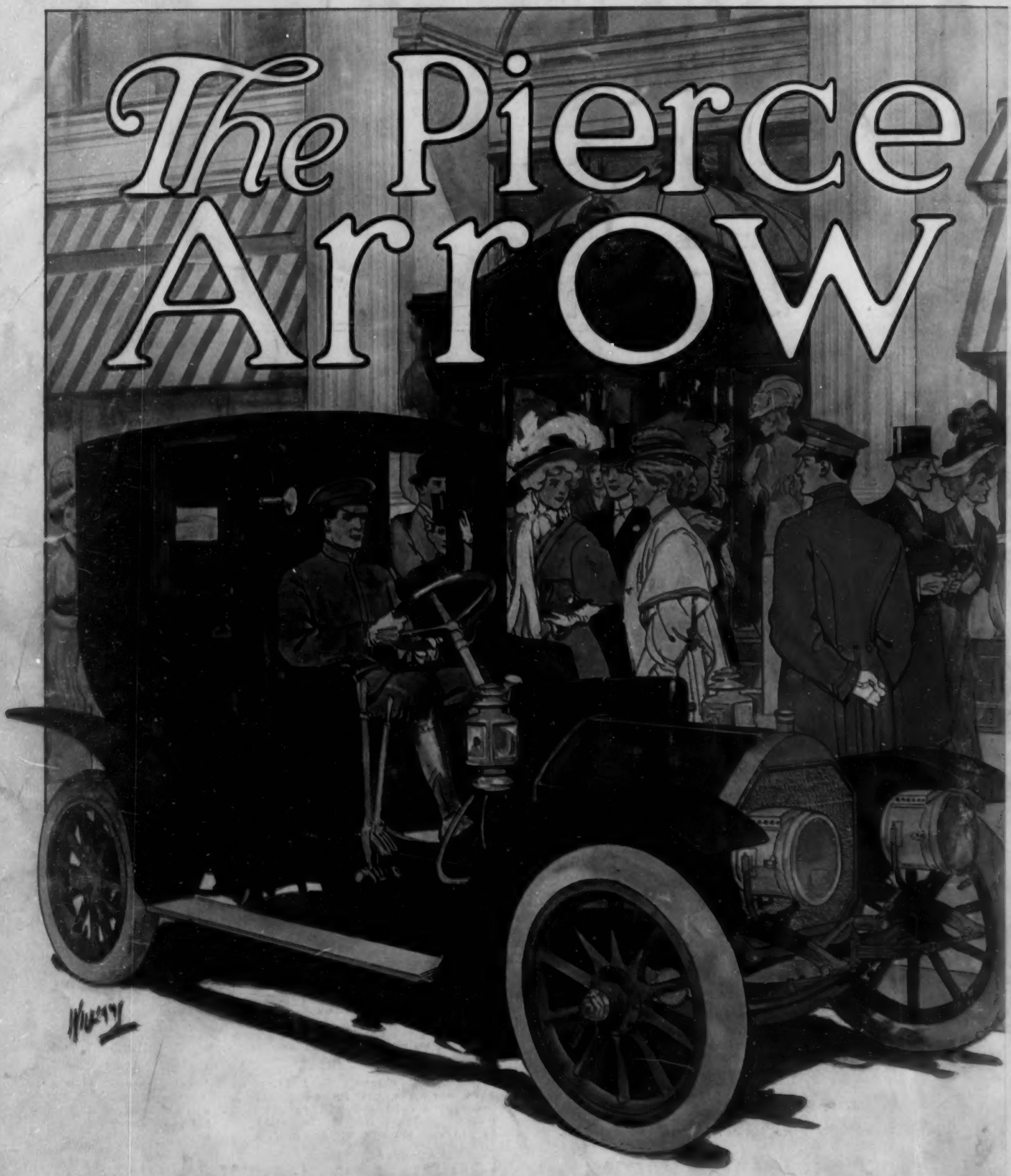
No one who values health, comfort, cleanliness and economy would think of using a kerosene lamp after enjoying the *countless advantages* of Denatured Alcohol.

Remember, we give *two full gallons* of Denatured Alcohol with every lamp—enough to last a *whole month*.

We prepay all charges. Send $5.75 (postal note, money order or express order) for all points East of the Mississippi—for points beyond add 50 cents. This special offer is open only for a *limited time*. By acting on it *immediately* you will insure *prompt* shipment. Address

U.S. INDUSTRIAL ALCOHOL CO., 33 Platt St., New York City

There are other Alcohol Utilities such as Stoves, Flatirons, Heaters, etc. Catalog free on application.



PIERCE ARROW ENCLOSED CARS

We offer for the coming season four types of enclosed cars of the following horse-power and prices:

	24 H. P. 4 cylinder	35 H. P. 6 cylinder	40 H. P. 4 cylinder	48 H. P. 6 cylinder	60 H. P. 6 cylinder
Landaulet	$3950	$4500	.....	.....	.....
Brougham	3900	4450	.....	.....	.....
Landau	.....	.....	$5500	$6200	$7200
Suburban	.....	.....	5400	6100	7100

These are built on the same chassis as the Pierce Arrow Cars, which made perfect scores and won the Trophies in both the Glidden and Hower Tours.

THE GEORGE N. PIERCE COMPANY, BUFFALO, N. Y. Members Association Licensed Automobile Manufacturers.